West Virginia University

CATALOGUE
1904 - 1905

ANNOUNCEMENTS
1905 - 1906

MORGANTOWN, W. VA. PUBLISHED BY THE UNIVERSITY

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CALENDAR

1905.

June 19, Monday.....Summer School Begins
July 29, Saturday.....Summer School Ends
September 25, Monday.....Fall Quarter Begins
September 25, 26, 27, Monday, Tuesday and Wednesday.....
.....Entrance Examinations
September 25, 26, 27, Monday, Tuesday and Wednesday.....
.....Matriculation and Registration of Students
September 27, Wednesday, 8 P. M.....Fall Convocation
September 28, Thursday.....Recitations of Fall Quarter Begin
November 30 to December 3.....Thanksgiving Recess
December 15, Friday.....Last Recitations of Fall Quarter
December 18, Monday, to December 20, Wednesday, inclusive.....
.....Final Examinations of Fall Quarter
December 21, Thursday, to January 2, 1906.....Quarterly Recess

1906.

January 3, Wednesday (Registration Day).....Winter Quarter Begins
January 3, Wednesday, 8 P. M.....Winter Convocation
January 4, Thursday.....First Recitations of Winter Quarter
February 22, Thursday.....Washington's Birthday, a Holiday
March 26, Monday.....Last Recitations of Winter Quarter
March 27, Tuesday, to March 29, Thursday.....
.....Final Examinations of Winter Quarter
March 29, Thursday.....Winter Quarter Ends
March 30, Friday, to April 2, Monday.....Quarterly Recess
April 3, Tuesday (Registration Day).....Spring Quarter Begins
April 3, Tuesday, 8 P. M.....Spring Convocation
April 4, Wednesday.....Recitations of Spring Quarter Begin
May 30, Wednesday.....Memorial Day, a Holiday
June 17, Tuesday.....Last Recitations of Spring Quarter
June 18, Wednesday, to June 21, Saturday, inclusive.....
.....Final Examinations of Spring Quarter
June 26, Thursday.....Commencement

BOARD OF REGENTS

FOR THE TERM BEGINNING MAY 19, 1901.

C. E. HAWORTH, Huntington. L. J. WILLIAMS, Lewisburg.
E. M. GRANT, Morgantown. D. C. GALLAHER, Charleston.
T. P. JACOBS, New Martinsville.

FOR THE TERM BEGINNING MAY 19, 1903.

J. R. TROTTER, Buckhannon. J. B. FINLEY, Parkersburg.
F. P. McNELL, Wheeling. C. M. BABB, Falls.

OFFICERS OF THE BOARD.

J. R. TROTTER.....President
J. S. STEWART.....Secretary
A. R. WHITEHILL.....Treasurer
T. E. HODGES.....Assistant Treasurer
W. J. WHITE.....Auditor

Board of Regents of the Montgomery Preparatory School.

The Regents of the University and the State Superintendent of Schools, ex-officio.

Board of Regents of the Keyser Preparatory School.

THOS. C. MILLER, State Superintendent of Schools, ex-officio.
THOMAS B. DAVIS, Keyser. J. W. GOODSELL, Davis.
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JAMES SITES, Upper Tract.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

THE OFFICERS OF THE UNIVERSITY.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President.
President's House.

POWELL BENTON REYNOLDS, D. D., Chaplain. 87 Grant Avenue.

WAITMAN BARBE, Litt. D., Assistant to the President, and Field Agent. 258 High Street.

ST. GEORGE TUCKER BROOKE, LL. D., Acting Dean of the College of Law. 128 Willey Street.

THOMAS CLARK ATKESON, Ph. D., Dean of the College of Agriculture. 234 Prospect Street.

JAMES MADISON BURNS, Major U. S. Army, Commandant of Cadets. 222 Willey Street.

ROSS SPENCE, Director of the School of Music. 165 High Street.

SUSAN MAXWELL MOORE, Dean of Women. Woman's Hall.

ALFRED JARRETT HARE, A. M., Principal of the Preparatory School and Registrar. 411 High Street.

DENNIS MARTIN WILLIS, LL. B., Principal of the Commercial School. South Park.

ALEXANDER REED WHITEHILL, Ph. D., Treasurer.
107 High Street.

THOMAS EDWARD HODGES, A. M., Assistant Treasurer.
466 High Street.

WILLIAM J. WHITE, Auditor. 466 Chestnut Street.

THE UNIVERSITY COUNCIL.

Daniel Boardman Purinton,
James Madison Burns,
Alfred Jarrett Hare,
Waitman Barbe,
Powell Benton Reynolds,
St. George Tucker Brooke,
Thomas Clark Atkeson,
Alexander Reid Whitehill,
Frederick Wilson Truscott,
Will Hazen Boughton,
Robert Allen Armstrong.

STANDING COMMITTEES.

Classification and Grades.

Thomas Edward Hodges,
Alfred Jarrett Hare,
Jasper Newton Deahl,
Clement Ross Jones,
James Morton Callahan.

Ways and Means.

Charles Henry Patterson,
William P. Willey,
James Scott Stewart,
Frederick Lincoln Emory,
Ross Spence.

Athletics.

Henry Sherwood Green,
Thomas Edward Hodges,
Walton Kirk Brainerd,
William Henry Whitham,
Dennis Martin Willis.

Students' Aid.

Russell Love Morris,
William Jackson Leonard,
Walter Lynwood Fleming,
Frederick Lawrence Kortright,
Rufus West.

Library.

Pauline G. Wiggin,
James Scott Stewart,
Henry Sherwood Green,
Samuel B. Brown,
Charles Henry Patterson.

Women Students.

Susan Maxwell Moore,
Louise Ferris Chez,
Grace Martin Snee,
Bertha Cleland Browning,
Pauline G. Wiggin.

Stationery and Printing.

James H. Stewart,
Andre Beziat de Bordes,
James Morton Callahan,
John Harrington Cox,
David Dale Johnson.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President and Professor of Philosophy. President's House.

A.B., West Virginia University, 1873; A.M., *ibid.*, 1876; Ph.D., University of Nashville, 1892; LL.D., Denison University, 1889. Instructor Preparatory Department of West Virginia University, 1873-9; Professor of Logic, *ibid.*, 1879-81; Professor of Mathematics, *ibid.*, 1881-5; Professor of Metaphysics, *ibid.*, 1885-9; Vice-President and Acting President, *ibid.*, 1881-82. Instructor in Vocal Music, *ibid.*, 1873-89; President Denison University, 1890-1901; present position since 1901. Author "Christian Theism," 1889.

POWELL BENTON REYNOLDS, A. M., D. D., Chaplain and Professor of Economics and Sociology. 87 Grant Avenue.

A.M., West Virginia University, 1887. D.D., Richmond College, 1890. Student, Richmond College, 1866-70. President Shelton College, 1872-84; President Buckner College, 1884-5; Professor of English, West Virginia University, 1885-9; Vice-President and Professor of Metaphysics, *ibid.*, 1889-93; Acting President, *ibid.*, 1893-5; Professor of Metaphysics and Political Science, *ibid.*, 1895-7; Professor of Philosophy, 1897-1901; Acting President, 1901; present position since 1901.

ST. GEORGE TUCKER BROOKE, A. M., LL. D., Acting Dean of the College of Law and Professor of Common and Statute Law. 128 Willey Street.

A.M., West Virginia University, 1889; LL.D., Wake Forest College, 1890. Student, University of Virginia Law School, 1867-9; member bar, Charles Town, W. Va., since 1869; Professor of Common and Statute Law since 1878; present position since 1903.

WILLIAM P. WILLEY, A. B., A. M., Professor of Equity, Jurisprudence, and Commercial Law. 250 Pleasant Street.

A.B., Dickinson College, 1862, A.M., *ibid.*, 1865; member bar, Morgantown, W. Va., and Baltimore, Md., 1866-78; present position since 1883.

ALEXANDER REID WHITEHILL, A. M., Ph. D., Professor of Chemistry. 107 High Street.

A.B., Princeton University, 1874; A.M., *ibid.*, 1893-5; Ph.D., Washington and Jefferson College, 1887; Graduate student, University of Leipzig and Freiberg School of Mines, Germany, 1874-5; Professor of Experimental Science, University Mound College, 1876-81; Principal Linsly Institute, 1881-5; present position since 1885.

SAMUEL B. BROWN, A. B., A. M., Professor of Geology and Mineralogy. 640 High Street.

A.B., West Virginia University, 1883; A.M., *ibid.*, 1886; Graduate student, National Museum, 1884; Harvard University, 1891; Teacher of Language and Mathematics, Martinsburg, W. Va., 1883-5; Principal Glenville State Normal School, 1885-90; Assistant in Geology, West Virginia University, 1890-2; present position since 1892.

JAMES SCOTT STEWART, B. S., M. S., Professor of Mathematics. 146 Willey Street.

B.S., West Virginia University, 1877; M.S., *ibid.*, 1880; Assistant in Preparatory School, West Virginia University, 1877-91; Professor of Mathematics, *ibid.*, 1891-3; Superintendent of Schools, Fairmont, W. Va., 1893-4; present position since 1894.

ROBERT WILLIAM DOUTHAT, A. M., Ph. D., Professor of the Latin Language and Literature. 263 Fife Street.

A.M., Emory and Henry College, 1874; Ph.D., Roanoke College, 1877; Professor of Languages, Missouri University School of Mines and Metallurgy, 1873-84; President Collegiate Institute (New Mexico), 1884-7; President Collegiate Institute (Arkansas), 1887-9; Professor of Language, Kentucky Military Institute, 1889-90; President Barboursville College, 1890-5; Professor of Ancient Languages, West Virginia University, 1895-7; present position since 1897.

BERT HOLMES HITE, M. S., Professor of Agricultural Chemistry, Vice Director and Chemist of the West Virginia Agricultural Experiment Station. 547 Front Street.

M.S., West Virginia University, 1890. Graduate student, Johns Hopkins University, 1891-5; Fellow in Chemistry, *ibid.*, 1893-5; Chemist of West Virginia Agricultural Experiment Station since 1895; Professor of Organic Chemistry, West Virginia University, 1895-7; present position since 1897; Chief Chemist of the Geological and Economic Survey of West Virginia.

THOMAS EDWARD HODGES, A. B., A. M., Professor of Physics. 466 High Street.

A.B., West Virginia University, 1881; A.M., *ibid.*, 1884; Principal Morgantown Public Schools, 1881-6; Principal and Instructor in Natural Science and Pedagogy, Marshall College State Normal School, 1886-96; Graduate student, Cornell University, Summer, 1897; present position since 1896.

THOMAS CLARK ATKESON, M. S., Ph. D., Dean of the College of Agriculture and Professor of Agriculture. 234 Prospect Street.

LL.B., Kentucky University, 1874; Ph.B., Central Normal College, 1891; Ph.D., *ibid.*, 1893; M.S., Barboursville College, 1900; Student, Kentucky A. & M. College, 1874-6; Member of the West Virginia State Board of Agriculture and Farmers' Institute Lecturer, since 1891; Professor of Agriculture, W. Va. University, 1891-3; President Barboursville College, 1896-7; Regent, W. Va. University, 1897; present position since 1897.

FREDERICK LINCOLN EMORY, M. M. E., M. E., Professor of Mechanics and Applied Mathematics and Superintendent of Buildings and Grounds. 156 Foundry Street.

B.S., Worcester, Mass., Polytechnic Institute, 1887; M.M.E., Cornell University, 1896; M.E., Worcester Polytechnic Institute, 1899; Director Mechanical Department, Washington, D. C., High School, 1887-90; Superintendent Trades School, Concord Junction, Mass., 1890-1; Professor of Mechanical Engineering and Mechanic Arts, West Virginia University, 1891-3; Director, Indianapolis, Ind., Industrial Training and Technical High School, 1893-5; present position since 1897.

ALFRED JARRETT HARE, A. B., A. M. Professor of the Latin Language and Literature, and Principal of the Preparatory School. 411 High Street.

A.B., West Virginia University, 1889; A.M., *ibid.*, 1902. Assistant in Latin and Mathematics, Preparatory School, West Virginia University, 1889-96; Preparatory Professor of Ancient Languages and Mathematics, *ibid.*, 1896-8; Professor of Latin, 1898-1901; Graduate Student, Harvard University, 1901; present position since 1901.

ROBERT ALLEN ARMSTRONG, A. B., A. M., Professor of English Language and Literature and Head of the Department of English. 107 High Street.

A.B., West Virginia University, 1886; A.M., *ibid.*, 1889; A.M., Harvard University, 1903; Principal West Liberty State Normal School, 1886-93; Professor of Mathematics, West Virginia University, 1893-4; Graduate student, University of Chicago, Summer, 1898; Professor of English, West Virginia University, 1894-1901; Vice-President, *ibid.*, 1897-9; Student, Columbian University, 1900; present position since 1901.

CHARLES HENRY PATTERSON, A. B., A. M., Professor of Rhetoric. Grand Avenue, South Park.

A.B., Tufts College, 1887; A.M., *ibid.*, 1893. Assistant Professor of Rhetoric and Elocution, West Virginia University, 1898-9; Professor of Rhetoric and Elocution, 1899; present position since 1903.

FREDERICK WILSON TRUSCOTT, A. M., Ph. D., Professor of Germanic Languages and Literatures. 66 Beverly Avenue.

A.B., Indiana University, 1891; A.M., *ibid.*, 1892; A.M., Harvard University, 1894; Ph.D., *ibid.*, 1896; Instructor in German, Indiana University, 1891-3; Assistant and Fellow in German, Harvard University, 1893-4; Graduate student of University of Berlin, 1896-8; 1900-1901; Assistant Professor of Germanic Languages and Literatures, West Virginia University, 1897-9; present position since 1899.

***JOHN BLACK JOHNSTON, Ph. B., Ph. D., Professor of Zoology.** 16 Franklin Avenue.

Ph.B., University of Michigan, 1893; Ph.D., *ibid.*, 1899; Assistant in Zoology, *ibid.*, 1893-7; Instructor in Zoology, *ibid.*, 1897-9; Assistant Professor of Zoology, West Virginia University, 1899-1900; present position since 1900.

JAMES MADISON BURNS, Major U. S. Army, Professor of Military Science and Tactics and Commandant of Cadets. 22 Willey Street.

Graduate of Beaver Academy. Entered the Union Army in 1861. Served in the 1st and 2nd West Virginia Volunteers until the close of the war. Appointed 2nd Lieut., 17th U. S. Infantry, and served in that regiment until promoted Major in May, 1899. Professor of Military Science and Tactics and Commandant of Cadets, Ohio State University, 1899-1900; present position since 1900.

HENRY SHERWOOD GREEN, A. B., LL. D., Professor of the Greek Language and Literature. 670 High Street.

A.B., Yale University, 1879; LL.D., Bethany College, 1901. Teacher of Latin and Greek, Hillman Academy, Wilkesbarre, Pa., 1879-1881; Principal, *ibid.*, 1881-86; Teacher in Preparatory School, Richmond, Ky., 1889-1892; Acting Professor of Greek, Central University, Richmond, Ky., 1892-3; Principal of Harrodsburg Academy, Harrodsburg, Ky., 1893-96; Professor of the Greek Language and Literature, Bethany College, Bethany, W. Va., 1896-1900; Associate Professor of the Greek Language and Literature, West Virginia University, 1900-01; present position since 1901.

CLEMENT ROSS JONES, B. S. C. E., M. M. E., Professor of Mechanical Engineering. 229 Kirk Alley.

B.S.C.E., West Virginia University, 1894; M.M.E., *ibid.*, 1897; M.M.E., Cornell, 1900. Associate Principal, West Virginia College, 1894; Assistant in Mechanical Engineering, West Virginia University, 1895-97; Instructor, *ibid.*, 1897-99; Assistant Professor of Mechanical Engineering, 1899-1901; Special Student in shop work, Worcester Polytechnic Institute, Summer, 1893; Special Student in Experimental Engineering, Stevens Institute of Technology, Summer, 1897; Member American Society of Mechanical Engineers; present position since 1901.

WILL HAZEN BOUGHTON, B. S. C. E., C. E., Professor of Civil Engineering. 669 Spruce Street.

B.S. (C.E.), University of Michigan, 1893; C.E., *ibid.*, 1898; Assistant Engineer of Maintenance of Way for the C., C., C. & St. L. Ry. and Bridge and Structural Draughtsman for the American Bridge Company, the Brown Hoisting Machinery Company, and others; Instructor in Mathematics and Civil Engineering, Denison University, 1894-1902; Assistant Professor of Civil Engineering, *ibid.*, 1902-03; present position since 1903.

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*On leave of absence for one year; holder of the Smithsonian Institute seat at the Zoological Station, Bay of Naples.

RUSSELL LOVE MORRIS, B. S. C. E., C. E., Professor of Civil and Mining Engineering. 357 Front Street.

B.S.C.E., West Virginia University, 1895; C. E., *ibid.*, 1898. Consulting Engineer, State Board of Agriculture; Assistant in Civil and Mining Engineering, West Virginia University, 1895-7; Assistant Professor Civil and Mining Engineering, 1897-1903; present position since 1903.

JASPER NEWTON DEAHL, A. B., A. M., Professor of Education. 414 Park Street.

A.B., University of Nashville, 1889; A.B., Harvard University, 1893; Higher Diploma, Teachers' College, Columbia University, 1889; A.M., Columbia University, 1899; Fellow in Education, Teachers' College, Columbia University, 1899-1900; Principal West Liberty State Normal School, 1893-98; Assistant Professor of Education, 1901-02; Associate Professor of Education, 1902-03; present position since 1903.

JOHN LEWIS SHELDON, A. M., Ph. D., Professor of Bacteriology and Bacteriologist of the West Virginia Agricultural Experiment Station. 413 Park Street.

B.Pd., B.Sc., Ohio Northern University, 1895; B.Sc., University of Nebraska, 1899; M.Sc., Ohio Northern University, 1899; A.M., University of Nebraska, 1901; Ph.D., *ibid.*, 1903. Instructor in Mathematics, Mount Hermon (Mass.) School, 1892-94; Instructor in Botany, Preparatory School to the State University (Nebraska), 1898-9; Acting Head of the Department of Biology, Nebraska State Normal School, 1899-1900; Instructor in Botany, University of Nebraska, 1900-1903; Fellow in Botany, *ibid.*, 1900-1903; present position since 1903.

SUSAN MAXWELL MOORE, Dean of Women and Instructor on the Piano. 52 University Driveway.

Student in Peabody Institute, Baltimore, Md., 1878-79; Teacher in Morgantown, W. Va., 1879-85; Student in New England Conservatory, Boston, Mass., (Piano, Carl. Faelten. Organ, Geo. E. Whiting,) 1885-87; Teacher of Piano, Mount Holyoke College, Mass., 1887-91; Student in Berlin (Piano, Oscar Ralf), 1891-92; Teacher of Piano, Conservatory of Music, Ottumwa, Iowa, 1892-93. Head of Piano Department of Shepardson College and Denison University, Granville, Ohio, 1893-1903; Summer Course under Carl Faelten, Boston, Mass., 1898, and in Faelten Piano School, Summer of 1901; present position since 1903.

JAMES MORTON CALLAHAN, A. M., Ph. D., Professor of History and Political Science. 276 Walnut Street.

B.S., Southern Indiana Normal College, 1892; A.B., University of Indiana, 1894; A.M., *ibid.*, 1895; Ph.D., Johns Hopkins University, 1897; Teacher in Southern Indiana Normal School, 1890-92; Assistant and Fellow, Johns Hopkins University, 1895-97; Acting Professor of American History and Constitutional Law, Hamilton College, 1897-98; Lecturer on Diplomatic History and International Relations, Johns Hopkins University, 1898-1901; Director, Bureau Historical Research, Washington, D. C., 1900-1902; Associate Professor of European History, 1902-03; present position since 1903.

ANDRE BEZIAT DE BORDES, Ph. D., Professor of Romance Languages and Literatures. 93 Logan Avenue.

Honorary Fellow, University of Chicago, 1898-99; Ph.D., University of Chicago, 1899; University of Paris (Sorbonne, France, Ecole des Chartes, Ecole des Hautes Etudes), 1901-1902; Professor of the French Language and Literature, Peninsular College of Gracia, Barcelona, Spain, 1891-92; Assistant in Modern Languages, Wesleyan College, Macon, Ga., 1895-96; Professor of Modern Languages, *ibid.*, 1896-99; Professor of Romance Languages, Kalamazoo College, 1899-1900; Lecturer in the Romance Languages and Literatures, Columbia University, 1900-01; Instructor in French, University of Michigan, 1902-03; present position since 1903.

Delegate of the Alliance Francaise; Member of the Modern Language Association; of the School of Felibres; and of the Association Phonetique Internationale. Lecturer for the Alliance Francaise, 1905-06.

ANTHONY WENCEL CHEZ, Director of Physical Training.
79 Grant Avenue.

Leader Y. M. C. A. Gymnasium, Indianapolis, 1892; Student, Mt. Hermon School (Mass.), 1892-96; Special student, Oberlin College, 1896-99; Graduate Chautauqua School of Physical Education, 1902; Graduate Harvard School of Physical Training, 1903; Graduate Coach, Oberlin College, 1899; Director Gymnasium and Athletic Coach, Wabash College, 1900-01; Professor of Physical Training and Athletic Coach, De Pauw University, 1901-02; Director Physical Culture and Athletic Coach, University of Cincinnati, 1902-04; present position since 1904.

JOHN NATHAN SIMPSON, A. B., M. D., Professor of Anatomy and Physiology. 293 High Street.

A.B., University of Nashville, 1893; M.D., Johns Hopkins University, 1902. First Assistant in Marshall College, 1893-7; Principal Huntington High School, 1897-8. Instructor in Anatomy and Physiology, 1902-03; Associate Professor, 1903-04; present position since 1904.

JOHN HARRINGTON COX, Ph. B., A. M. Professor of English Philology. 188 Spruce Street.

Graduate, Illinois State Normal University, 1891; Ph.B., Brown University, 1897; A.M., Harvard University, 1900. Educational Director, Twenty-Third Street Branch, Y. M. C. A., New York City, 1897-9; Graduate student, Harvard University, 1899-1901; Professor of the English Language and Literature, University of North Dakota, 1901-02; Instructor in English Philology, 1902-03; Associate Professor of English Philology, 1903-04; present position since 1904.

WALTER LYNWOOD FLEMING, A. M., Ph. D., Professor of History.
258 McLane Avenue.

B.S., Alabama Polytechnic Institute (A. and M. College), 1896; M.S., *ibid.*, 1897; M.A., Columbia University, 1901; Ph.D., *ibid.*, 1904. Assistant in History, English and Mathematics, Alabama Polytechnic Institute, 1896-97; Librarian, *ibid.*, 1897-98, 1899-1900; Instructor in History and English, *ibid.*, 1899-1900; Fellow in American History, Columbia University, 1901-02; Lecturer in History, *ibid.*, 1902-03; Associate Professor of History, 1903-04; present position since 1904.

ROSS SPENCE, Director of the School of Music and Instructor on Stringed Instruments. 165 High Street.

Graduate University School of Music, Ann Arbor, Michigan, 1897; pupil of Emanuel Wirth, Berlin, 1897-1900; Member Boston Festival Orchestra, 1901; Instructor on Stringed Instruments, 1901-1904; present position since 1904.

JULIET B. JOHNSTON, B. S., M. S., Acting Professor of Zoology.
South Park.

B.S., University of Michigan, 1897; M.S., *ibid.*, 1898. Assistant in Zoology, *ibid.*, 1895-8; Instructor in Zoology, University of Illinois, 1898-9; present position since 1904.

WAITMAN BARBE, A. M., Litt. D., Assistant to the President and Associate Professor of the English Language and Literature.
258 High Street.

B.S., West Virginia University, 1884; M.S., *ibid.*, 1887; A.M., 1897; Litt. D., Denison University, 1904. Regent, West Virginia State Normal Schools, 1895-1901; Field Agent, West Virginia University, 1895-8; Graduate student, Harvard University, 1900; present position since 1898.

FREDERICK LAWRENCE KORTRIGHT, B. S., D. Sc., Associate Professor of Chemistry. 234 Jackson Avenue.

B.S., Cornell University, 1890; D.Sc., *ibid.*, 1895. Assistant in Chemistry, *ibid.*, 1890-1; Chemist, Solvy Process Company, 1891-2; Assistant in Chemistry, Cornell University, 1892-3; Instructor in Chemistry, *ibid.*, 1893-9; Graduate student, Polytechnicum, Switzerland, 1899-1900; and Technische Hochschule, Carlsruhe, Germany, 1900; Instructor in Chemistry, Cornell University, 1900; Assistant Professor of Chemistry, 1900-1902; present position since 1902.

EDWIN MAXEY, D. C. L., LL. D., Associate Professor of Law.
59 Jones Avenue.

Ph.B., Bucknell University, 1893; LL.B., Chicago Law School, 1897; LL.M., *ibid.*, 1897; D.C.L., Illinois College of Law, 1898; Ph.M., the University of Chicago, 1899; LL.D., Illinois College of Law, 1901; M.Dip., Columbian University, 1903. President of Palatinate College, 1893-94; Lecturer on Constitutional and International Law, Illinois College of Law, 1896-99; Dean of Aurora Law School, 1898-1900; Dean of Law Department of Southern University, 1900-1901; Teaching Fellow in Jurisprudence and Constitutional Law, University of Wisconsin, 1901-02; Lecturer on Colonial Law and Government, Columbian University, 1902-03; present position since 1903.

C. EDMUND NEIL, A. B., Associate Professor of Elocution and Oratory. 373 Spruce Street.

A.B., McKendree University, 1895; A.B., Ohio Wesleyan University, 1897; private pupil of Leland T. Powers, 1895-98 (Summers), Instructor in Elocution, Ohio Wesleyan University, 1895-6; Assistant Professor of Oratory, Ohio Wesleyan School of Oratory, 1896-7; Professor of Elocution, Denison University, 1897-8; Impersonator under the management of the Central Lyceum Bureau since 1898; Professor of Oratory and Elocution, Denison University, 1901-03; Assistant Professor of Elocution, 1903-04; present position since 1904.

WILLIAM JACKSON LEONARD, Associate Professor and Head of the Department of Fine Arts. 107 High Street.

Student, The Cowels Art School, Boston, 1889-90; pupil of Jean Paul Laurens and Benjamin Constant, Paris, 1891-93; Student, Academie Julien and Ecole des Beaux Arts, Paris; Special student, Harvard University; Studio and Instructor, Boston, and Hinsdale, N. H.; Instructor in Fine Arts, 1900-02; present position since 1902.

EDWIN FAYETTE CHURCH, Jr., B. S., Assistant Professor of Mechanical Engineering. 288 Grand Street.

B.S., Massachusetts Institute of Technology, 1901. Draftsman and Assistant to Engineer, William Cramp & Sons., Philadelphia, 1901-1903. Draftsman, I. P. Morris Co., Philadelphia, 1903. Instructor in Marine and Mechanical Engineering and Naval Architecture, Lehigh University, 1903-1904. Associate Member of American Society of Naval Engineers and of Society of Naval Architects and Marine Engineers. Present position since 1904.

JUSTIN FRANK GRANT, Ph. B., M. D., Assistant Professor of Anatomy. 669 Spruce Street.

Ph.B., Yale University, 1898; M.D., Johns Hopkins University, 1903. Resident Physician and Surgeon, Hahnemann Hospital, Rochester, N. Y., 1900-1901; Instructor in Anatomy, 1903-04; present position since 1904.

DENNIS MARTIN WILLIS, LL. B., Principal of the Commercial School.
South Park.

LL.B., West Virginia University; Instructor Methodist Conference Seminary, Buckhannon, 1891-2; Instructor, West Virginia Business College, 1892-3; Instructor, Northwestern Academy, Clarksburg, 1893-4; Instructor, Central Commercial College, Cumberland, Md., 1894-5; Principal, Western College of Commerce, 1895; present position since 1895.

EVA EMMA HUBBARD, Instructor in Drawing and Painting.
Spruce Street.

Graduate, Morgantown Female Seminary, 1876. Student in Mrs. I. P. Wilkinson's studio, Wheeling, 1881-2; Instructor in Drawing and Paintingg, Wheeling Female College, 1883-4; Student in Carl Hecker Art School, New York City, 1884-5; Instructor in Fine Arts, Mountain Lake Park Summer Chautauqua, 1885-8; private studio, Wheeling, 1881-2; Instructor in Drawing and Painting, Wheeling Female Hart's School for Young Ladies, 1894-7; present position since 1897.

*FREDERICK PHILIP RUHL, D. V. S., Instructor in Veterinary Science.

D.V.S., American Veterinary College, New York, 1894. Practicing veterinary medicine since 1884; Consulting Veterinarian, West Virginia State Board of Agriculture since 1896; present position since 1899.

GRACE MARTIN SNEE, B. M., Instructor on the Piano and Pipe Organ. 442 High Street.

Graduate, Virginia College for Young Ladies, 1893; B.M., *ibid.*, 1894. Instructor in Piano Department, *ibid.*, 1893-4; graduate student, Peabody Institute, Baltimore, 1895-6; Assistant on the Piano, West Virginia University, 1897-1901; present position since 1901.

CHARLES COLLIER HOLDEN, A. B., Instructor in Romance Languages. 468 High Street.

Student of University of Virginia, 1877-81; travel and study in Europe, 1881-83; Instructor in Modern Languages, Maupin's University School, Ellicott City, Maryland, 1885-88; A.B. (extra ordinem), Johns Hopkins University, 1888; Graduate student, *ibid.*, 1896-8; Principal of Private School, Raleigh, N. C., 1889-94; Principal of Elkton, Maryland, Academy, 1896-99; Instructor in Modern Languages, Boys' University School of Baltimore, 1899-1900; Assistant in Romance Languages, 1901-03; present positon since 1903.

RUDOLF WERTIME, Instructor on the Piano. 457 High Street.

Pupil in the Royal High School of Music, Berlin, 1894-1898, where for four years his instructors were Professors Raif, Bargiel, Wolff and Von Herzogenberg; Teacher in the Clinton Liberal Institute, New York, 1898-1900; Post Graduate work with the Conrad Ansorge, Berlin, 1900-1901; present position since 1903.

ALEXANDER STEWART THOMPSON, Instructor in Voice. South Park.

Springfield, Mass., Conservatory of Music, 1875-79; Private Studio, Albany, N. Y., 1879-84; Director of Music, Saratoga Springs, N. Y., Public Schools, 1884-87; Student of Voice, William Courtney, New York City, 1887; Private Studio, Utica, N. Y., 1887-90; Student of Piano, Kelso and Sherwood, 1890; Director of Music, Kansas State Normal, 1890-91; Norfolk, Va., Ladies College, 1891-92; Student, Guildhall School of Music (Sims Reeves), London, Eng., and Dr. W. E. Gladstone, Royal College of Music, London, Eng., 1892-93; Oneida Conservatory of Music and Utica School of Music, Utica, N. Y., 1893-97; Director of Music, Lincoln, Ill., College, 1897-1903; Director of Music, Lombard College, 1903-4; present position since 1904.

WALTER KIRK BRAINERD, B. S., Instructor in Dairying. 307 University Driveway.

B.S., Michigan Agricultural College, 1899; Graduate student, *ibid.*, 1899-1900, and Tulane University, 1902-03; Instructor in Breeds of Live Stock and Dairying, Baron de Hirsch School, Woodbine, N. J., 1901-02; Instructor in Breeds of Live Stock, Stock Feeding and Stock Breeding, Leland University, New Orleans, La., 1902-03; present position since 1903.

THOMAS CARSKADON JOHNSON, B. S. Agr., A. M., Instructor in Botany and Assistant Horticulturist. 375 Spruce Street.

B.S.Agr., West Virginia University, 1896; A.M., *ibid.*, 1900; Instructor in Science, Lee Military Academy, 1896-9; Fellow and Graduate Student, West Virginia University, 1899-1901; Acting Professor of Horticulture, University of Missouri, 1901-2; Fellow in Horticulture, Cornell University, 1902-3; present position since 1903.

SIMEON CONANT SMITH, A. B., A. M., Instructor in Rhetoric and Assistant in English in the Preparatory School. Grand Avenue, South Park.

A.B., Tufts College, 1898; A.M., West Virginia University, 1902; Graduate student, Harvard University, 1903-4; Fellow in Rhetoric and Elocution, West Virginia University, 1899-1900; present position since 1900.

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*Resigned April 1, 1905.

ALLEN WILSON PORTERFIELD, A. B., A. M., Instructor in German.
480 Spruce Street.

A.B., West Virginia University, 1899; A.M., *ibid.*, 1901; Student in the University of Berlin, 1903-04; Instructor in Shepherd College State Normal School, 1899; Fellow in German, West Virginia University, 1899-1901; present position since 1901.

JAMES A. WAUGH, V. S.. Instructor in Veterinary Science.

ELIZABETH LEE WHITESCARVER, Assistant in Shorthand and Typewriting. 156 Willey Street.

Student in Commercial School, West Virginia University, 1895-7; present position since 1897.

BERTHA CLELAND BROWNING, A. B., A. M., Assistant in the Preparatory School. 68 Beverly Avenue.

A.B., West Virginia University, 1900; A.M., *ibid.*, 1902; present position since 1901.

WILLIAM HENRY WHITHAM, B. S., A. M., Assistant in Physics and Geology. 92 Beverly Avenue.

B.S., West Virginia University, 1899; A.M., *ibid.*, 1900; A.M., Cornell University, 1901; Graduate student, Cornell University, 1903-04; Fellow in Physics, West Virginia University, 1899-1900; present position since 1901.

DAVID DALE JOHNSON, A. B., A. M., Assistant in English.
375 Spruce Street.

A.B., Marietta College, 1896; A.M., West Virginia University, 1903; Instructor in Latin and Sciences, Parkersburg High School, 1896-7; Instructor in German and Latin, Marietta Academy, 1897-8; Instructor in English, Parkersburg High School, 1898-1902; present position since 1902.

MABEL CONSTANCE FOSTER, Assistant in Harmony, Theory, Musical History, Sight Reading, Ear Training, and Piano.
Peabody Hotel.

Student in Conservatory of Music, Philadelphia, 1891-2; Pupil of von Westernhagen, Philadelphia, 1893; Pupil of Elisa Mazzucato Young in Harmony, 1897-1901; Student in Sherwood School of Music, 1901-02; Accompanist in Sydney Lloyd Wrightson's Studio, Chicago, 1901-02; present position since 1902.

DRUSILLA VICTORIA JOHNSON, A. B., A. M., Assistant in Greek and Mathematics. 670 High Street.

A.B., Bethany College, 1900; A.M., West Virginia University, 1902; Instructor in Greek and Latin, Bethany College, 1899-1900; Graduate Student, West Virginia University, 1900-1901; Teacher of Greek and Mathematics, Preparatory Branch of West Virginia University at Montgomery, 1901-03; present position since 1903.

ARTHUR LEE POST, A. B., Assistant in Bacteriology in the University and the Agricultural Experiment Station.
87 Grant Avenue.

A.B., West Virginia University, 1898; Fellow in Chemistry, *ibid.*, 1898-99; Teacher of Science, West Virginia Wesleyan University, 1899-1901; Student in the Medical Department of Johns Hopkins University, 1901-03; Student in Bacteriology, University of Chicago, Summer, 1904; Graduate student, West Virginia University, 1904; present position since 1904.

LOUISE FERRIS CHEZ, Assistant Director of Physical Training, in charge of the Woman's Gymnasium. 79 Grant Avenue.

Graduate, Chautauqua School of Physical Education, 1902; Post Graduate work in Massage and Swedish; Assistant to Jakob Bolin of New York City in Clinic of Corrective and Orthopedic Gymnastics, 1903. Director of Physical Training for Women, DePauw University, 1901-2; Director, Physical Culture for Women, University of Cincinnati, 1903-4; present position since 1904.

CHARLES HENRY AMBLER, A. B., Assistant in History. 552 Spruce Street.

A.B., West Virginia University, 1904.

RUFUS A. WEST, Assistant in Metal Working and Stationary Engineer. 181 First Street.

Apprentice Fairchild, Lawhead & Co., Carriage Builders, 1887-90; Blacksmith, Tygart Mfg. Co., 1890-92; Special student, Springs Garden Institute, Summer, 1897; Head Stationary Engineer, National Export Exposition at Philadelphia, Fall, 1899; present position since 1892.

THOMAS HOWARD CATHER, Foreman of the Machine Shop. 487 Spruce Street.

Apprentice B. & O. R. R. Machine Shop at Grafton, 1887-91; machinist, B. M. R. R. Co. and Union Pacific R. R., 1891-93; C. R. I. & P. R. R. Co., Horton, Kans., 1893-95; Cotton Belt R. R., Pine Bluff, Ark., 1895-97; Navy Yard, Washington, D. C., 1898; Foreman B. & O. Erecting Shop, Grafton, W. Va., 1899-1902; present position since 1902.

JOSEPH WILLIAM LYONS, Assistant in Zoology.

W. A. MESTREZAT, Assistant in Music; Wind Instruments. South Morgantown.

Pupil of W. H. Stowe, G. Oeschsle and F. B. Heuber; Member 21st U. S. Infantry Band; Band Master, 1st W. Va. Vol. Infantry in Spanish War, and 30th U. S. Vol. Infantry in Philippines.

*FRANCES THOMAS GORDON, Assistant in Voice. 290 Wiles Street.

Pupil of Sydney Lloyd Wrightson, Chicago, 1901-02; present position since 1902.

JOHN B. GRUMBEIN, Foreman of the Wood Shop. 491 Front Street.

Graduate, Lebanon High School, Lebanon, Pa., 1894; Apprentice, Orr, Painter & Co., Reading, Pa., 1895-8; Pattern Maker, Harrisburg Foundry & Machine Co., 1898-9; same, Robert Wetherel & Co., Chester, Pa., 1899; same, Ingersoll-Sergeant Drill Co., Easton, Pa., 1899-1900; Foreman of Pattern Shop, Blairsdell Mach'y Co., Bradford, Pa., 1900-03; present position since 1903.

SPECIAL SUMMER SCHOOL INSTRUCTORS AND LECTURERS.

RICHARD GREEN MOULTON, Ph. D. (Professor of Literature in English, the University of Chicago), Literature.

WILLIAM HARRISON MACE, Ph. D. (Professor of History in Syracuse University), History.

RICHARD GAUSE BOONE, Ph. D. (Editor of "Education," and late Superintendent Cincinnati Public Schools), Education.

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*Resigned January 1, 1905.

ALBERT EDWARD WINSHIP, Litt. D. (Editor of "Journal of Education," Boston), Education.

SARAH E. GRISWOLD (Professor of the Science and Art of Instruction in the Chicago Normal School), Model Classes.

DAVID E. CLOYD, A. M. (Superintendent of Wheeling Public Schools), Education.

MARGARET K. SMITH, Ph. D. (Professor of Psychology and Geography in the New York Normal School, New Paltz on the Hudson), Geography, Physiography and Geology.

JOHN PORTER LAWRENCE (Director of Piano Department National Park Seminary, Washington, D. C.), Piano and Organ.

ANTON KASPAR (Concert Master of Georgetown Orchestra, Washington, D. C.), Violin.

REV. E. MORRIS FERGUSSON, Trenton, N. J. (representing the International Sunday School Association), Sunday School Methods.

NANNIE LEE FRAYSER (Primary Superintendent for the State of Kentucky), Sunday School Methods.

W. C. SHAFER (General Secretary West Virginia Sunday School Association), Sunday School Methods.

REV. L. E. PETERS (District Secretary American Baptist Publication Society), Sunday School Methods.

REV. C. HUMBLE (Superintendent Presbyterian Sunday School Missions for Kentucky, Tennessee, and West Virginia), Sunday School Methods.

LIBRARY STAFF.

PAULINE G. WIGGIN, B. L. S., A. M., Librarian. 125 Foundry Street.

A.M., Radcliffe College, 1895; B.L.S., New York State Library School, 1902. Instructor in English, Vassar College, 1895-97; Instructor in English, Wellesley College, 1897-99; Assistant in charge of History Division, New York State Library, 1901-02; present position since 1902.

JESSICA GARDINER CONE, Assistant Librarian and Cataloguer. 148 High Street.

Vassar College, 1879-80; New York State Library School diploma, 1897. Library organizer and cataloguer, 1897-1904; present position since 1904.

MARGARET CLARK SMITH, A. B., Assistant Librarian. 107 High Street.

A.B., Wilson College, 1902; Graduate, Drexel Institute Library School, 1903; Instructor in English and Mathematics in Martin's Ferry, Ohio, High School, 1904; present position since 1904.

KATHERINE CLIFTON HEDRICK, Assistant in Law Library.
Episcopal Hall.

Private Secretary to President of West Virginia Supreme Court of Appeals, 1896-1901; Legal Reporter of the Law Journal of West Virginia Bar Association, 1897-1901; present position since 1903.

LILLIAN SMITH, Assistant in the Library.

AGRICULTURAL EXPERIMENT STATION STAFF.

JAMES H. STEWART, Director and Agriculturist. 118 Willey Street.

BERT HOLMES HITE, M. S., Vice Director and Chemist.
547 Front Street.

————————, Horticulturist.

JOHN L. SHELDON, Ph. D., Bacteriologist. 413 Park Street.

WILLIAM EARL RUMSEY, B. S. Agr., Entomologist in Charge.
413 Park Street.

HORACE ATWOOD, M. S. Agr., Assistant Agriculturist. Experiment Farm.

CHARLES DANFORTH HOWARD, B. S., Associate Chemist.
23 Lincoln Avenue.

FRANK FITCH GROUT, B. S., Assistant Chemist.

FRANK BATSON KUNTZ, Assistant Chemist. 542 Spruce Street.

T. C. JOHNSON, B. S. Agr., A. M., Assistant Horticulturist.
375 Spruce Street.

FREDERICK E. BROOKS, Special Agent.

A. LEE POST, A. B., Assistant Bacteriologist. 87 Grant Avenue.

W. J. WHITE, Clerk. 466 Church Street.

M. A. STEWART, Librarian.

ALICE ENGLE, Stenographer.

WEST VIRGINIA UNIVERSITY

ORGANIZATION.

The University organization consists of the following colleges and schools:

I. The College of Arts and Sciences.
II. The College of Engineering and Mechanic Arts.
III. The College of Agriculture.
IV. The College of Law.
V. The College of Medicine.
VI. The School of Music.
VII. The School of Fine Arts.
VIII. The School of Military Science and Tactics.
IX. The Summer School.
X. The Commercial School.
XI. The Preparatory School.

FOUNDATION AND LOCATION.

In 1814 the Legislature of Virginia passed an act incorporating Monongalia Academy, and locating it at Morgantown. The first building was a one-story brick structure, divided into two rooms. In 1828, this building was sold, and a two-story brick building erected. As a further endowment, the Virginia Legislature passed an act authoriing the trustees of the Academy to raise twenty thousand dollars by lottery, and the drawings for this lottery were conducted January 26, 1832. In later years the Monongalia Academy became an institution of wide reputation, drawing students at one time from fourteen states. For more than fifty years it was the leading school in Virginia west of the mountains.

On July 2, 1862, Congress passed an act donating public lands to the several states to establish "colleges for the benefit of Agriculture and Mechanic Arts." In 1864 this act was extended to the new State of West Virginia, and in 1867 the West Virginia Agricultural College was founded. The trustees of the Monongalia Academy gave to the state all of the real estate and personal effects of the Academy. The building and grounds of Woodburn Seminary, a school for girls at Morgantown, were also donated, and the new College succeeded the old

Academy and Seminary, inheriting an honorable record and much good will. The first faculty meeting was held August 20, 1867, and on September 2 of that year the school was formally opened. The first session was held in the Academy building, and the Woodburn Seminary building, which stood where Woodburn Hall now stands, was used as a dormitory. In 1868 the name of the new institution was changed by an act of the Legislature to the West Virginia University.

Morgantown, the seat of the University, is the county seat of Monongalia county, and is a beautiful town of nine thousand inhabitants, on the Monongahela River and the Baltimore and Ohio Railroad, 103 miles east of Wheeling, and the same distance south of Pittsburg. It has the modern conveniences of natural gas, waterworks, electric lights and street railway, and local and long distance telephones, and is noted for its healthful conditions, physical, social, and moral. There are churches of the following denominations in the town: Presbyterian, Methodist Episcopal, Methodist Protestant, Baptist, Protestant Episcopal, Lutheran, Christian, and Roman Catholic. There are no saloons in Morgantown.

Few institutions of learning have more attractive natural sites. The University grounds border the Monongahela River, and afford a most picturesque outlook. The campus comprises about fifty acres. The University has also a farm of about one hundred acres for the use of the Agricultural Experiment Station and the College of Agriculture.

FUNDS.

The funds for maintaining the University are derived from the following sources: (1) Interest on the land grant endowment of $114,750; (2) the Morrill fund; (3) the Hatch fund; (4) biennial appropriations by the State Legislature; (5) fees and tuition, the latter being paid only by students from other states.

BUILDINGS.

The buildings are as follows:

1. Woodburn Hall, a three-story building, containing lecture rooms and the Botanical and Zoological laboratories. The third floor of this building is occupied by the School of Music.

2. Martin Hall, a three-story building, containing lecture rooms and society halls.

3. Science Hall, a four-story building, containing lecture rooms, laboratories for the departments of Physics, Chemistry, and Geology, the Museum of Geology and Paleontology, and the President's office.

4. Commencement Hall, a large two-story building, containing a commodious chapel, with 1,500 seats, and the gymnasium.

5. Agricultural Experiment Station, a two-story building, containing laboratories, lecture rooms, and offices.

6. An Armory and Drill Hall for the Military Department.

7. Mechanical Hall, occupied by the College of Engineering and Mechanic Arts.

8. A Library Building, containing the general library, reading, and seminary rooms.

9. The President's House, in process of construction.

10. The Woman's Hall, or dormitory for young women students.

11. Fife Cottage, containing lecture rooms.

Besides these there are the various buildings on the Agricultural Experiment Station Farm.

The first nine of the buildings mentioned are of brick and stone.

THE UNIVERSITY LIBRARY

The Library is open from 8 A. M. to 10 P. M. every week day during term time, except Thanksgiving day, Christmas day, New Year's day, and the Fourth of July. On Sundays, the Library is open, for readers only, from 2 to 5 P. M. During the summer vacation, it is open on week days from 8 to 11 A. M.

All officers and students and, under special restrictions, persons not connected with the University, have the privilege of drawing books from the Library for home use, two volumes being allowed at one time. Direct access is permitted to the shelves in the stack as well as in the reading and reference rooms, and thus students have an opportunity to become acquainted with the literature of the subjects studied as far as it is represented in the Library. The most important books used in connection with the courses of instruction are kept on reserve shelves in the reference room for more convenient access.

A card catalogue, shelf list, and other bibliographic aids are provided, and the librarians are ready at all times to give assistance in research and investigation.

The Library contains about 23,000 volumes, including 4,000 government documents. Present appropriations provide for an annual increase of about 1,300 volumes. One hundred and sixty periodicals are subscribed for, including publications of societies and scientific journals. Most of the county papers of the state are sent to the reading room.

There is a special library belonging to the Law Department, containing 2,000 volumes, located in Woodburn Hall; and the Willey Library, a valuable collection of about 1,500 volumes donated to the University by the heirs of the late Senator W. T. Willey, will be placed in the document room and opened to the public as soon as the shelving is completed.

The library of the Agricultural Experiment Station, containing valuable sets of chemical journals and other technical material, may also be consulted by members of the University.

The handsome new Library Building, erected by the state, was opened for use in January, 1903, and has supplied one of the greatest needs of the University. It is entirely of stone, fire-proof, and contains

ample reading and reference rooms, which are abundantly lighted and well furnished with modern library appliances. The book room is supplied with metal stacks, which will hold 20,000 volumes. A second story is soon to be added to the stack, doubling its capacity.

On the upper floors of the building are rooms for government documents and for seminaries. These are not yet completely furnished, but will, it is hoped, soon be ready for use.

DEPARTMENTAL EQUIPMENTS

ANATOMY.

The lecture room contains a considerable collection of osteological material, mounted and unmounted, models, etc. The dissecting room has tables for the accommodation of forty students at one time. The anatomical law of West Virginia furnishes ample material for practical work and every student is given opportunity for the dissection of the whole body under the personal supervision of the instructor.

ASTRONOMY.

A students' astronomical observatory has recently been erected on the top of the hill in the north east corner of the University campus. The dome is thirteen feet in diameter, and is similar in construction to the Hough type. It is equipped with an achromatic telescope of five and one-half inches aperture, and six feet focal length, mounted equatorially on an iron pier, and driven by clock-work mechanism. The telescope is provided with an assortment of eyepieces of high and low powers and with fittings for different kinds of work. For illustrating the lectures, a carefully selected assortment of lantern slides, drawings, maps, diagrams and models, has been obtained, and this is supplemented by apparatus lent by other departments. The library contains the principal hand-books and treatises in each section of descriptive and mathematical astronomy, together with the publications of the U. S. Government, the files of "Popular Astronomy" and the Astrophysical Journal, and the bulletin from Harvard, Lick and Yerkes observatories.

BACTERIOLOGY AND PLANT PATHOLOGY.

The laboratory for bacteriology and plant pathology is situated on the first floor of the Experiment Station building. It is provided with gas and electricity, and hot and cold water, and is equipped with apparatus sufficient for present needs, including sterilizers, autoclaves, incubators, microscopes and accessories, and the usual glassware. Additional apparatus is being added from time to time.

BOTANY.

The Botanical Laboratory is equipped with Bausch and Lomb microscopes; hand lenses; microtome; standard stains and chemicals, and apparatus; special physiological apparatus, including centrifugal machine, clinostat, auxanometer, devices for the automatic registration of transpiration and photosynthesis, and complete apparatus for the study of respiration; and a large collection of alcoholic histological material. The Department of Botany has always been granted any needed use of the green-houses of the Experiment Station.

CHEMISTRY.

The rooms assigned to this department are located on the second floor of Science Hall, and consist of a lecture room and two large laboratories. Connected with these are a dark room, a weighing room, and a preparation room. The laboratories afford working space for sixty-five students at a time and are abundantly supplied with water and gas and the chemicals and apparatus necessary for practical work. This apparatus includes a large number of pieces used in illustrating the elementary principles of the science as well as many of the more expensive instruments used in analytical work. An excellent collection of the latest text and reference books is kept within easy reach of the students and the aim has been to make the laboratory outfit as complete and ample as possible.

CIVIL ENGINEERING.

The material equipment of this department consists of the civil engineering laboratory equipped with a collection of apparatus and instruments for instruction in engineering believed to be complete and modern, consisting of: transits, levels, theodolites, surveyors' compasses, aneroid barometers, plane table, solar compass, sextant clinometers, odometer, pedometers, telemeters, prismatic compass, hand levels, a full collection of drawing instruments, blue printing outfit; complete set of United States standard weights and measures, testing machines for testing strength of materials, as wood, iron, steel, stone, cement, mortar, etc.; a drawing room containing a large number of descriptive geometry models as well as models of bridges, furnaces, and many other structures, and a large number of wood and plaster casts and models pertaining to descriptive geometry, architecture, etc. The equipment of the Department of Physics, described below, is of great value to students in the engineering courses.

COMMERCIAL SCHOOL.

The Commercial School has recently been fitted out with modern commercial furniture, including three banking counters and office desks, and an equipment for the most extensive business practice. Ten

new Smith Premier typewriters have been added to the Typewriting Department for the use of students.

DAIRYING.

The dairy equipment consists of one National power separator, several small hand separators of different makes, one power and one hand churn, one 200 gallon tempering vat, one 75 gallon vat, one power and one hand butter worker, apparatus for the Babcock test, preservative tests, and the acid test, and a complete equipment for making ice cream. This equipment occupies one-half of the basement of Martin Hall.

ENTOMOLOGY.

The equipment of the Entomological Department includes collections of fruit tree and farm and garden insects sufficient for illustration in the courses in economic entomology. The apparatus for collecting, breeding, mounting, preserving and studying specimens is complete. The microscopic outfit is sufficient for carrying on any class of study in this line. The photographic department is thoroughly equipped for the requirements of entomological and other work.

GEOLOGY.

The equipment for purposes of illustrative teaching in this subject consists of many thousands of fossils, casts and models, a good collection of minerals, specimens of all the important building stones, and Ward's College Collection in Paleontology, showing the advancement from the early forms of life to those of the present time. The University is situated in the midst of a great coal producing region, within five miles of the western fold of the Appalachian mountains, and oil and gas wells are but a short distance away. The natural facilities, therefore, for the study of geology are unsurpassed.

GYMNASIUM.

The Gymnasium includes all of the first story of Commencement Hall, and is well furnished with Indian clubs, dumb-bells, wands, vaulting, horizontal, traveling and parallel bars; finger, wrist and hand machines; flying rings, chest and intercostal machines, quarter circle, adjustable ladder, climbing ladder, plain rope trapeze, traveling rings, striking bags and drum, boxing gloves, hammer and shot, heavy bells, medicine ball, lockers, large plunge bath and shower baths, horse, batteau boards, jumping standards, stands, and basket ball outfit.

Young women have the same advantages in the Gymnasium as young men, certain hours being reserved and regular classes formed for them.

MECHANICAL ENGINEERING.

Practical instruction in Mechanical Engineering and the Mechanic Arts and in Electrical Engineering is provided for in the equipment of Mechanical Hall. Standard measures and calculating instruments, laboratory appliances and apparatus are provided for qualitative and quantitative experimental work in engineering.

The electric light and power plant of the University is located in the Mechanical Hall. The boilers, triple-expansion engines, condensers, and electrical machinery, as well as the motive-power machinery of the shop, have been especially selected and arrangd for experimental work in Mechanical and Electrical Engineering. In the drawing room, models of the typical valve-gears are used for instruction. Samples of raw materials and of manufactured products are collected, forming the nucleus of an engineering museum. Such machine tools and work-shop appliances for working wood and metal, as well as small tools, stock and material, are supplied as will enable the work of instruction to be carried on efficiently in the Mechanic Arts.

PHYSICS.

The Department of Physics has its lecture room and laboratories in Science Hall. A large room on the basement floor of this building has been fitted up as a laboratory and equipped with apparatus for individual experimental work. Work of this character is required of students in every regular course given in the department.

The apparatus for electrical measurements and test work is especially well selected and of superior quality. Students in electrical subjects have opportunity to become familiar with the use of the latest and most improved forms of apparatus for measurement of current resistance, electro-motive force, quantity, capacity, induction, etc.

The lecture table equipment is also quite extensive. The laboratory is open for the use of students every afternoon except Saturday. All laboratory work is under the personal supervision of the instructor.

ZOOLOGY.

The Zoological Laboratory comprises two laboratory rooms and a small room for mammals. The laboratory rooms have about 1600 feet of floor space, are lighted by north windows, and are furnished with ebonized oak tables, dust-proof cases for apparatus, and ample shelves and drawers. The rooms are provided with Welsbach and electric lights, a plentiful supply of water, and tables furnished with gas. The laboratory will accommodate thirty-two students at one time.

There is a good equipment of microscopes, including a large Zeiss microscope fitted with apochromatic objectives and compensating eyepieces, dissecting microscopes, a Minot-Zimmerman microtome, a

parraffin bath of special design accommodating twenty-two workers, incubator, water-still, and the usual minor apparatus, glassware, and re-agents for class work and investigation. There is a set of Ziegler's wax models of the chick and a number of Auzoux models, including the large model of the human brain. There is a large collection of fishes and amphibia, and a constantly increasing number of anatomical and embryological preparations.

The laboratory is well provided with the means for studying living animals and their development. There is an open air aquarium twenty-three feet long, and thirteen smaller ones indoors for frogs, turtles, etc. Provision is made for maintaining sixteen small aquaria and hatching jars with running water.

For lecture purposes there is a Colt projection lantern and a good cellection of lantern slides.

The library contains recent important books of reference, a few monographs of special groups, full files of several and the current issues of a large number of the more important morphological and physiological journals. The most important books are kept in the laboratory for convenient reference.

GENERAL INFORMATION

CHRISTIAN ASSOCIATIONS.

The Young Men's Christian Association of the West Virginia University was organized for the purpose of encouraging active Christian work among its own members and of promoting the spiritual growth of all the young men of the University.

Regular meetings are held every Friday evening at 6:15 in the Association room. All young men of the University who are members of Evangelical Churches are eligible to active membership in the Association; and young men who are not connected with any church may become associate members. A four years' course of Bible study is maintained by the Association. Delegates are sent each year to the various student conventions.

An Advisory Board chosen by the Association and composed of members of the Faculty, prominent business men of the town and students, has general control of the affairs of the Association.

The Young Women's Christian Association was organized April 19, 1900. Membership is open to young women of the University on the same terms as those stated above for the Y. M. C. A. Regular devotional meetings are held every Friday at 4 P. M. in Columbian Hall.

THE CENTRAL ORATORICAL LEAGUE.

This organization at present consists of the Ohio Wesleyan University, Ohio State University, the University of Indiana, Cornell University, the University of Illinois, and the West Virginia University. The object of this League is to maintain a high standard of oratory among college students and to foster an interest in public speaking by holding contests in oratory at such times and places as shall be decided upon by a two-thirds vote at the annual business meeting of the League. The annual contest of the League is held the third Friday in May.

At a final contest held on the first Friday evening in February, the student who wins first honors is chosen to represent the University in the annual contest of the League. For regulations governing the preliminary contests and for further information students are referred to the Committee on Ways and Means.

OTHER SOCIETIES.

1. The Columbian Literary Society. Regular meetings every Friday night in its own hall in Martin Hall. Membership open to all students of the University.

2. The Parthenon Literary Society. Regular meetings every Friday night in its own hall in Martin Hall. Membership open to all students of the University.

3. The Debating Association of West Virginia University. Organized for the purpose of fostering interest in general debate and for promoting annually a series of inter-collegiate contests.

4. The Choral Society. Regular meetings every Monday at 7:30 P. M., in Commencement Hall. Membership open to all students in the School of Music and all others interested.

5. The Athletic Association. Organized for the purpose of encouraging and developing the athletic interests of the University. Incorporated under the laws of West Virginia. Membership open to all students of the University.

6. The Students Publishing Association. Organized for the purpose of publishing the college papers. At present there are published the Athenaeum, a weekly newspaper, and the Monongalian, a quarterly literary magazine.

7. The Engineering Society. Regular meetings the first and third Friday nights of each month in room 14, Science Hall. Membership open to all students in the College of Engineering and Mechanic Arts.

8. The Aurora Grange, Number 372, Patrons of Husbandry. Regular meetings every Tuesday night in the lecture room of the Experiment Station. Membership open to all students in the College of Agriculture and to others who may be elected.

PRIZES.

All contestants in any of the contests in oratory, declamation, or debate, must have received credit for at least one course in Elocution. This rule applies to all Collegiate contests, inter-society and other, but not to contests in the Preparatory School.

No composition, in whole or in part, shall be submitted in competition for two prizes.

Only undergraduate students are eligible for any prize offered.

No student shall be eligible to enter any contest who has not been a resident student in this University for at least one quarter preceding the quarter in which the contest is to be held, and who is not a resident student in good standing in the University in the quarter in which the contest is held.

No successful contestant may become a second time a competitor for the same prize.

The conditions upon which the awards in the several contests are made may be learned upon application at the President's office or to the members of the Committee on Ways and Means.

The following prizes are open to students in various departments of the University:

I. The Scott Prize for Essays.

The sum of one hundred dollars is given each year by Hon. N. B. Scott, United States Senator from West Virginia, to be awarded in two prizes, one of sixty dollars and one of forty dollars, for the best essay and the second best essay written by a woman student in any department of the University, upon some important fact in American history. The subject for 1905-6 is, Domestic Life in the Eighteenth Century.

II. The Inter-Society Prizes.

Prizes aggregating one hundred and fifteen dollars are awarded annually by the Board of Regents of the University to the literary society whose representatives excel in declamation, original oratory, essay writing, and debate.

III. The Regents' Prize in Composition.

A prize of fifty dollars is awarded annually by the Board of Regents of the University to the student in any of the regular college courses who shall write the best essay on a topic selected by the Committee on Ways and Means. The subject for 1905-6 is, Types in American Fiction. The subject is intended to include types of American character represented in American fiction written by Cooper, Irving, Hawthorne, Harte, Cable, Howells, Wilkins, Garland.

IV. The Elkins Prizes in Greek.

A prize of sixty dollars to the student who makes the highest average grade in the first college year's work in Greek, and a prize of forty dollars to the student who makes the next highest grade in the same work, have been offered by Hon. Stephen B. Elkins, United States Senator from West Virginia.

V. The Jas. F. Thompson Prize in Anatomy.

A prize of twenty-five dollars, the gift of Mr. James F. Thompson, of Martinsburg, W. Va., will be awarded annually to the undergraduate student who does the best work in Anatomy for three quarters.

VI. The Regents' Prizes in Declamation.

The Board of Regents of the University annually awards to the student in the Preparatory School who excels in declamation, a prize

of thirty dollars, and to the one who ranks second, a prize of twenty dollars.

VII. The Edward Thompson Company Prize.

The Edward Thompson Company offers for the year 1905-6 to the student in the senior law class who shall write the best essay on some subject in law to be selected by the Faculty of the Law School, a prize consisting of a set of Encyclopedia of Pleading and Practice in twenty-three volumes. The value of this work is $138.00.

VIII. The Bryan Prize in Political Science.

The Hon. William J. Bryan has given a sum of money the annual income of which is to be offered as a prize to the student in the University who shall write the best essay on some subject in the Science of Government. The amount of the prize for the present is fifteen dollars. The subject for 1905-6 is, Should Corporations be Permitted to Contribute to the Expenses of Political Campaigns.

IX. The Tax Commission Prize.

The members of the State Tax Commission, W. P. Hubbard, Henry G. Davis, John K. Thompson, L. J. Williams, and J. H. Holt, have donated the sum of $1,350, the income of which is to be used as a prize for the "best original work bearing on matters of taxation in West Virginia." The conditions of competition are determined by the Faculty. The amount of the prize at present is $70.00. For the year 1905-6 the prize will be offered for an essay on the subject, The Taxation of Corporations.

THESES.

If a thesis is required by the class officer of a candidate for the bachelor's degree, the student will observe the following regulations:

Theses must be typewritten with black non-copying record ink on Crane's Japanese linen paper, of quality 24 pounds to the ream, folio size. This paper, of right quality and correct size, viz., 8x10 inches, may be obtained at the University book room, or at any book-store in Morgantown. A margin of one and one-fourth inches must be left at the left edge of each sheet, and a margin of three-fourths of an inch on the other edges. The title page should follow, mutatis mutandis, the sample title page on the bulletin board in the Library.

When the thesis is typewritten and ready for binding, the student will secure the written approval of the professor under whose direction the thesis has been prepared and the Librarian's receipt for the thesis fee. The thesis will then be presented to the Committee on Classification and Grades. The thesis must be in the hands of this committee

at least thirty days before the date on which the degree is to be conferred.

The Committee on Classification and Grades will not receive a thesis from any student until he has received credit for thirty-four college courses.

DISCIPLINE.

The rules and regulations which students are required to observe are few, simple and reasonable—punctuality and regularity in attendance upon all required exercises; reasonable diligence in the performance of the work prescribed; abstinence from drinking, gambling, and like gross vices; and civil, orderly conduct generally.

Students who cannot, or will not, comply with these requirements will not be allowed to remain in the University.

All matters of discipline are in charge of the University Council.

CHAPEL EXERCISES.

The regular University work of each day of the week, except Saturday, begins with Chapel exercises. These exercises consist of singing, reading the Scriptures, and prayer. The service is conducted by the Chaplain of the University, or by some one designated by him. The singing is in charge of the Director of the School of Music. In addition to these exercises, the Chaplain delivers a course of lectures each quarter on such subjects as the origin, structure, literature, history, languages, versions, institutions, personages, influences, etc., of the Bible. Students who enroll for these courses and comply with such requirements as may be prescribed by the Chaplain, are given credit for one-third of a course for each quarter. Appropriate text books are used in addition to the lectures.

Attendance upon Chapel exercises is voluntary; but patrons of the University who wish the students under their charge to attend these exercises may have them enrolled by making such desire known to the University Chaplain.

CHURCH HALLS.

Several religious denominations have manifested an active interest in establishing church halls in Morgantown for the purpose of providing homes for students during their stay in the University.

The Episcopal Hall was established in 1895 by the Rt. Rev. George W. Peterkin, Bishop of West Virginia, to provide a home for young men studying for the ministry under his direction, and for any other students of the University who may choose to reside there. He did this in preference to establishing a separate church college, which would have necessitated the duplication of the plant already established at the University. The Hall is a comfortable home-like building

of forty rooms, heated by steam and lighted by electricity, under the care of a proctor, who resides in the Hall. The primary object of the Hall is to secure for the student, not only the attractive corporate side of college dormitory life, but also some of the comforts of home life.

The charge for board and room per week is $3.50. A student may obtain the right to room alone by paying $3.75 per week.

ATHLETICS.

Wholesome athletics are essential to a full college life, and are encouraged under responsible supervision. Teams in foot ball, base ball, basket ball, track, and tennis are organized each season and trained by Director Chez.

Beginning with this year, two Field Days will be held annually, in the fall and spring terms. Indoor meets will be held during the winter term for the class championship.

Through the generosity of the Hon. George C. Sturgiss, the athletic field has been provided with a grand stand, at a cost of one thousand dollars, which will add greatly to the enjoyment of athletic sports and their profit to University life.

All field sports are under the control of the Faculty Committee on Athletics.

UNIVERSITY FEES.

Except in the School of Music and in the Department of Fine Arts, tuition is free to West Virginia students.

The tuition charged students from other states is:

$5.00 per quarter in the Preparatory School.

$5.00 per quarter in the Commercial School.

$8.00 per quarter in the College of Law.

$12.50 per quarter in the other colleges.

The matriculation fee is $5.00, payable upon entering the University by all students except cadets and those whose work is exclusively in Music or Art. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee is $3.00 per quarter, payable at the beginning of the quarter by all students except cadets and those whose work is exclusively in Music or Art.

Any student in the School of Music who is not a resident of West Virginia, and who pays at least $16.00 a quarter for Music, is permitted to take, in addition to Music, one credit course each quarter free of charge, or two credit courses at one-half the usual charges, but in either case such student shall pay the contingent fee of $3.00 a quarter.

A fee of $2.00 each term is charged for registration and the issuance of class cards. This fee is remitted to all students who procure class cards during the first three days of the fall quarter, and on the first day of the winter quarter, and the first day of the spring quarter; and is exacted in all other cases whatsoever. Class officers will issue class cards only on presentation of the ticket from the Registrar and Treasurer, and after the limit of time above mentioned this ticket must bear the Treasurer's receipt for this fee. Students whose work is exclusively in Music or Art or in both are excused from payment of the $2.00 registration fee.

The diploma fee is $5.00, payable upon graduation by all students. This fee is to cover the cost of the diploma.

Students in laboratory courses and in Typewriting pay special fees to cover the cost of materials used.

The School of Music and the School of Fine Arts are partly supported by the special fees charged. These fees, which are moderate, are stated in connection with the announcement of these departments.

BOARD AND LODGING.

Board and lodging together may be obtained in Morgantown for $3.50 per week. Most students, however, pay from $3.75 to $4.00 per week. Furnished rooms may be obtained in private families at from $1.00 to $1.25 per week. Board in students' clubs costs from $2.50 to $3.00 per week; in private families, from $3.00 to $4.00.

ESTIMATED EXPENSES FOR A YEAR OF NINE MONTHS.

Room Rent	$ 36.00	to	$ 45.00
Board	90.00	to	108.00
Washing	9.00	to	13.00
Text-books	8.00	to	30.00
Contingent fees	9.00	to	9.00
	$152.00		$205.00

To this estimate must be added matriculation, tuition and laboratory fees, in the case of students who are required to pay them, and also traveling expenses, clothing, and miscellaneous expenses, which depend largely upon the tastes and habits of individual students.

Text-books are kept for sale in the University book room, and are furnished to students at cost.

State cadets are furnished their text-books, stationery and uniforms free, and are exempt from the payment of matriculation and contingent fees.

AID FOR STUDENTS.

The Committee on Students' Aid undertakes to assist earnest and worthy students, who are dependent upon their own efforts for their

education, to obtain various forms of employment in Morgantown, which may not interfere with their studies and will help to defray their expenses.

This committee also has charge of all requests which come to the University for students to fill various positions. Calls of this kind, especially upon the Engineering Department, are frequent.

The establishment of a fund is contemplated which, under proper conditions, will be loaned to students who would otherwise be unable to complete their course. Contributions to this fund, which will be under the direction of a board of trustees, are solicited. Communications in regard to contributions should be directed to the President.

WOMAN'S HALL.

At a meeting of the Board of Regents of West Virginia University in June, 1903, a large building at the north edge of the campus was leased for the purpose of a Woman's Hall, and Miss Susan Maxwell Moore was elected Dean of the Women. The Hall and annex, together with an adjoining cottage, furnish rooms for about fifty young lady students, all of them under the care of Miss Moore. The Hall has been refurnished throughout. This new arrangement will give the University more direct charge of young women students than it has had hitherto. The cost of rooming and boarding is moderate.

Y. W. C. A. HOUSE.

This living house for young women is in charge of the Y. W. C. A. of the University, and is conducted on the co-operative plan. The house has two kitchens. two dining rooms and a laundry. Each student may buy her own supplies and do her own cooking if she prefers, or several students may club together and take turns in doing the work. The actual cost of living under this plan has been from $2.25 to $3.25 per week, which includes room, rent, board, light, and heat. The lower rate is for those who have received some of their food supplies from home. In this house students may also do their own washing, which saves about $2.00 a month. The Y. W. C. A. House accommodates fifteen young women.

OTHER BOARDING AND ROOMING PLACES.

The Y. M. C. A. and Y. W. C. A. of the University have charge of the matter of boarding and rooming places, under the general direction of the Faculty. They will collect and keep a complete list of boarding and rooming places and committees will be present in the association rooms on the second floor of Martin Hall during the opening days of each term to give aid and information to students.

Persons desiring information in advance of their arrival in Morgantown may address Mr. C. T. Boggess, Morgantown, W. Va., or Miss Crystal Courtney, Morgantown, W. Va., who will cheerfully reply to all inquiries.

Committees from the Y. M. C. A. and Y. W. C. A. meet new students at trains and render them every assistance possible in getting settled in Morgantown.

TEACHERS' BUREAU OF INFORMATION.

The Teachers' Bureau of Information, under the direction of the Department of Education, has for its aim:—

1. To keep a record of the graduates of the University who wish to teach, to gather information as to their academic and professional qualifications and personal fitness for school work, and to recommend for vacancies those who seem most likely to prove themselves efficient.

2. To keep a similar record of alumni who wish to be transferred to other positions.

3. To assist boards of education and other school officials in securing teachers and to co-operate with teachers' agencies in placing graduates of the University.

Students desiring recommendation for any position as teachers should do at least one year's work, or three courses in Education. Those desiring recommendation for a position in a normal school or as principal or superintendent of schools should do at least two years' work, or six courses in Education.

No position is assured any student. General letters of recommendation are not given to students. Information obtained from professors and others is regarded as confidential. No charge is made for any services rendered. Blanks for registration will be furnished on application. The following is the committee on recommendation: Dr. D. B. Purinton, T. E. Hodges, J. N. Deahl, Sec.

ACCREDITED AND RECOGNIZED PREPARATORY SCHOOLS.

The University is a part of the Public School System of the State, and desires that its relations with the other parts of the system be as close and intimate as possible. The Committee on Classification and Grades has full charge of all matters pertaining to accredited and recognized schools. The committee consists of Professors Hodges, Hare, Deahl, Jones, and Callahan. School superintendents, principals, or boards, desiring to have their schools placed on the accredited or recognized list, should make application to Professor J. N. Deahl, sub-committee on accredited and recognized schools.

Accredited Preparatory Schools are those whose graduates will have a sufficient number of credits to admit them to the Freshman Class. (As the requirements for admission to the College of Engineer-

ing are all prescribed courses, it is possible that a graduate of an accredited school may not have some of the prescribed work, and so not be able to enter the Freshman Class in Engineering.)

Recognized Preparatory Schools are those whose graduates will not have had a sufficient number of credits to admit them to the Freshman Class, but will receive credit toward admission for the work certified.

Diplomas or certificates of a general nature will not be accepted, but certificates setting forth the work of the student in detail will be required in every case. The University provides a special form for this certificate, copies of which may be obtained at any time upon applications to the President of the University or Chairman of the Committee on Classification and Grades. A supply should be kept constantly on hand by the Principal of each accredited or recognized school.

The list of accredited and recognized preparatory schools at present is as follows:

Accredited Preparatory Schools.

Allegheny Collegiate Institute,.....Alderson, W. Va.
Barboursville College,.....Barboursville, W. Va.
Berkeley Military Academy,.....Martinsburg, W. Va.
Broaddus Classical and Scientific Institute,.....Clarksburg, W. Va.
Charleston High School,.....Charleston, W. Va.
Clarksburg High School,.....Clarksburg, W. Va.
Fairmont High School,.....Fairmont, W. Va.
Huntington High School,.....Huntington, W. Va.
Linsly Institute,.....Wheeling, W. Va.
Martinsburg High School,.....Martinsburg, W. Va.
Parkersburg High School,.....Parkersburg, W. Va.
Pittsburg Central High School,.....Pittsburg, Pa.
Salem College,.....Salem, W. Va.
Scottdale High School,.....Scottdale, Pa.
Sistersville High School,.....Sistersville, W. Va.
State Normal School,.....Athens, W. Va.
State Normal School,.....Fairmont, W. Va.
State Normal School,.....Glenville, W. Va.
State Normal School,.....Huntington, W. Va.
State Normal School,.....Shepherdstown, W. Va.
State Normal School,.....West Liberty, W. Va.
Southwestern State Normal School,.....California, Pa.
Uniontown High School,.....Uniontown, Pa.
Wheeling High School,.....Wheeling, W. Va.

Charles Town High School,.....Charles Town, W. Va.
Ceredo High School,.....Ceredo, W. Va.
Connellsville High School,.....Connellsville, Pa.
Davis Free School,.....Piedmont, W. Va.
Elkins High School,.....Elkins, W. Va.
Grafton High School,.....Grafton, W. Va.
Harrisville High School,.....Harrisville, W. Va.
Hinton High School,.....Hinton, W. Va.
Mannington High School,.....Mannington, W. Va.
McMechen High School.....McMechen, W. Va.
Morgantown High School,.....Morgantown, W. Va.
Moundsville High School,.....Moundsville, W. Va.
Mt. Wesley High School,.....Berkeley Springs, W. Va.
New Cumberland High School,.....New Cumberland, W. Va.
Pennsboro High School.....Pennsboro, W. V.
Salem High School.....Salem, W. Va.

ADMISSION.

Candidates for admission to the University must present certifi cates of good moral character, and if from other colleges or universities, must present letters of honorable dismissal.

Candidates for admission who come from other institutions of learning without letters of honorable dismissal may, at the discretion of the Registrar, be allowed to matriculate provisionally, but in every such case the Registrar will himself make immediate inquiry of the institution from which the applicant comes concerning his standing as a student in that institution, and if a certificate of honorable dismissal cannot be obtained, the matriculation will be canceled, and all fees paid by the applicant will be returned.

The course of procedure above prescribed will be followed also in cases of students from accredited schools, who offer themselves for matriculation without the regular certificate as prescribed on page 41 of this catalogue.

MATRICULATION AND REGISTRATION.

Before being admitted to any class, students matriculate at the President's office, in Science Hall.

All students are required to register at the beginning of each term.

THE COLLEGE OF ARTS AND SCIENCES

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL. D., President and Professor of Philosophy.

POWELL BENTON REYNOLDS, D. D., Chaplain, and Professor of Economics and Sociology.

ALEXANDER REID WHITEHILL, Ph. D., Professor of Chemistry.

SAMUEL B. BROWN, A. M., Professor of Geology and Mineralogy.

ROBERT WILLIAM DOUTHAT, Ph. D., Professor of the Latin Language and Literature.

JAMES SCOTT STEWART, M. S., Professor of Mathematics.

THOMAS EDWARD HODGES, A. M., Professor of Physics.

ROBERT ALLEN ARMSTRONG, A. M., Professor of the English Language and Literature.

CHARLES HENRY PATTERSON, A. M., Professor of Rhetoric.

FREDERICK WILSON TRUSCOTT, Ph. D., Professor of Germanic Languages and Literatures.

*JOHN BLACK JOHNSTON, Ph. D., Professor of Zoology.

JAMES MADISON BURNS, U. S. A., Professor of Military Science and Tactics, and Commandant of Cadets.

HENRY SHERWOOD GREEN, LL. D., Professor of the Greek Language and Literature.

JASPER NEWTON DEAHL, A. M., Professor of Education.

JOHN LEWIS SHELDON, Ph. D., Professor of Bacteriology.

JAMES MORTON CALLAHAN, Ph. D., Professor of History and Political Science.

ANDRE BEZIAT de BORDES, Ph. D., Professor of Romance Languages and Literatures.

ANTHONY WENCEL CHEZ, Director of Physical Training.

JOHN NATHAN SIMPSON, M. D., Professor of Anatomy and Physiology.

JOHN HARRINGTON COX, A. M., Professor of English Philology.

WALTER LYNWOOD FLEMING, Ph. D., Professor of History.

JULIET B. JOHNSTON, M. S., Acting Professor of Zoology.

*On leave of absence.

WAITMAN BARBE, Litt. D., Associate Professor of the English Language and Literature, and Assistant to the President.

FREDERICK LAWRENCE KORTRIGHT, Ph. D., Associate Professor of Chemistry.

C. EDMUND NEIL, A. B., Associate Professor of Elocution and Oratory.

WILLIAM JACKSON LEONARD, Associate Professor and Head of Department of Fine Arts.

JUSTIN FRANK GRANT, Ph. B., M. D., Assistant Professor of Anatomy.

CHARLES COLLIER HOLDEN, A. B., Instructor in Romance Languages.

THOMAS CARSKADON JOHNSON, A. M., Instructor in Botany.

SIMEON CONANT SMITH, A. M., Instructor in Rhetoric.

ALLEN WILSON PORTERFIELD, A. M., Instructor in German.

WILLIAM HENRY WHITHAM, A. M., Assistant in Physics and Geology.

DRUSILLA VICTORIA JOHNSON, A. M., Assistant in Greek and Mathematics.

JOSEPH WILLIAM LYONS, Assistant in Zoology.

ARTHUR LEE POST, A. B., Assistant in Bacteriology.

LOUISE FERRIS CHEZ, Assistant Director of Physical Training.

ENTRANCE REQUIREMENTS.

The requirements for admission to the College of Arts and Sciences are as follows:

SUBJECTS.	Number of Courses Prescribed.	Maximum Allowed.	Minimum Electives Allowed.
English	9	9	0
Latin	6	9	1
Greek	0	6	3
French	0	6	3
German	0	6	3
Mathematics	6	8	1
Botany and Zoology	0	3	1
Physics	0	2	1
Physiology	0	1	1
Physical Geography	0	1	1
Chemistry	0	3	2
Drawing	0	3	1
History	2	6	1
Civil Government	0	1	1
Total	23	64	20

Twenty-three courses prescribed; thirteen courses elective; thirty-six courses required.

A course, as defined below under the various subjects for admission, represents the amount of work that may be done in a secondary school in the minimum time—one term (twelve weeks), class meeting five times a week, in periods of from forty-five minutes to one hour in length. Three courses in any subject as outlined below are the equivalent of one and one-fourth units, as defined by the North Central Association of Colleges and Preparatory Schools. And the thirty-six courses required for admission to the West Virginia University are the full equivalent of the fifteen units required for admission by the North Central Association of Colleges and Preparatory Schools.

From one to three courses credit for Military service rendered while in the University Preparatory School will be allowed.

From one to four courses credit for Chapel lectures taken while in the University Preparatory School will be allowed.

English.

The work in English should cover three years, if five periods per week of one hour each can be devoted to it. If fewer or shorter recitation periods are necessary, it should extend over four years. This work should include a study of Grammar, Composition, Rhetoric, and Literature.

Grammar and Composition.—The aim of the instructor in teaching Grammar should be to lead the student to a correct use of grammatical forms in speaking and writing, rather than to a mere knowledge of the definitions and rules of technical grammar. Words should be studied in their relation to one another in the sentence, and sentences should be considered as related parts of the paragraph. Constant use should be made of selections from the best modern writers that the student may come in contact with good English as it is used rather than as dissected by grammarians. Frequent exercises in oral and written composition should be required. The written work should afford careful drill in spelling, capitalization, and punctuation. In the external form of the composition, the heading, margin, and indentation of paragraphs, should receive attention. Any good text book can be used as a basis for this work.

Rhetoric and Composition.—The work in rhetoric should include a study of the sentence, the paragraph and the theme, with special attention to unity, coherence and emphasis; and a study of diction and of the figures of speech. Selections from the best authors should provide the student with illustrative examples in this work, and frequent written exercises should be required. Subjects for composition should be within the range of the student and of such nature as to arouse his

interest. This work should afford a drill in narration, description, and exposition.

The student should do some composition work every day; he should do it with care and be judged by it. The daily exercise should be simple, based on some of his school duties and usually designed for another teacher, but each student should write at least one theme a week for the teacher of English. This composition should be carefully read and criticised by the teacher and then corrected by the student.

Literature.—The study of literature should go hand in hand with the study of composition; one should strengthen and supplement the other. In the study of a production, three things should receive special attention—the meaning of the author, the method of the author, and the style of the author. The student should be required to prepare oral or written reports on books selected for reading.

In the study of literature in secondary schools, very little should be done in the history of literature, except in connection with the masterpieces studied.

American Literature.—In American literature at least one (more if possible) representative production should be read from Franklin, Irving, Cooper, Bryant, Hawthorne, Lowell, Longfellow, Whittier, Poe, Thoreau, Emerson, Parkman, Stowe, Wallace, Dana, Borroughs, Warner and Hale.

Close study should be made of Bryant's Thanatopsis, Emerson's American Scholar, Whittier's Snow Bound, and Lowell's Vision of Sir Launfal.

English Literature.—In English literature one or more productions should be read from Shakespeare, Milton, Goldsmith, Dryden, Pope (Translation of the Iliad, books I., VI., XXI., and XXIV.), Lamb (Tales from Shakespeare), Thackeray, Carlyle, Macauley, Scott, Kingsley, Coleridge, Wordsworth, Dickens, George Eliot, Blackmore, Hughes and Tennyson.

Close study should be made of Shakespeare's Macbeth and Merchant of Venice, Burke's Speech on Conciliation with America, Milton's L'Allegro, Il Penseroso, Comus and Lycidas, Macauley's Essay on Milton and Addison, and the Sir Roger De Coverley Papers from the Spectator.

Latin.

To entitle a student to credit for the six required courses of preparatory Latin, he should have a thorough mastery of some good first year Latin book, such as Chase and Stuart's First Year in Latin, or Bennett's Foundations of Latin. He should also have read and parsed, in addition to the above, four books of Caesar's Gallic War and three orations of Cicero.

If he desires credit for the maximum number of courses of preparatory Latin (nine), he should have read and parsed, in addition to the above, two other of Cicero's Orations and six books of Aeneid of Virgil, should have had one year of preparatory Latin composition such as Collar and Moulton's Preparatory Latin Composition, and should be able to read metrically dactylic hexameter verse.

Greek.

Credit for three courses will be given for the completion of some good text in beginning Greek, such as White's First Greek Book, and one book of Xenophon's Anabasis.

For six courses credit, in addition to the above work, the student should have read Books II., III., and IV. of Xenophon's Anabasis, and about fifty pages of select readings from Xenophon and Herodotus, together with prose composition.

French.

To entitle a student to credit for three courses, he should:

1. Know the main principles of French grammar, the regular and most common irregular verbs, etc.
2. Be able to write, in French, sentences of moderate difficulty.
3. Have read at least two hundred and twenty-five pages of modern French prose.

To entitle a student to credit for six courses, he should:

1. Have a thorough knowledge of French grammar and syntax.
2. Be able to write in French on ordinary topics.
3. Understand spoken French well enough to follow a lecture given in that language.
4. Have read about eight hundred pages of French (both modern and classic).

German.

The following is a general outline of the work that will entitle an applicant to credit for three courses in German:

1. A thorough knowledge of elementary syntax.
2. Constant drill in pronunciation and oral translation.
3. Composition, thirty pages.
4. Translation, one hundred and fifty pages.

For six courses credit, the following additional work is required:

Modern prose and familiar poems, three hundred pages.

Advanced syntax.

Intermediate composition, thirty pages.

Mathematics.

The six prescribed courses in mathematics may be made up of three courses in Algebra, two courses in Plane Geometry, and one course in Solid Geometry, or four courses in Algebra and two courses

in Plane Geometry. The maximum number of courses which any student may offer is eight, four courses credit being allowed in Algebra, two courses in Plane Geometry, one course in Solid Geometry, and one course in Plane Trigonometry.

Elementary Algebra.—Credit for three courses will be given for the completion of the work in any standard high school algebra. The text should be supplemented by abundant test exercises. The student should be able to perform all the exercises in such a text with rapidity and accuracy and to solve practical problems readily.

Advanced Algebra.—One additional course credit. This includes in addition to the above, ratio and proportion. The progressions, the elementary treatment of permutions and combinations, and the binomial theorem for positive integral exponents; as much as is contained in the higher grade texts to logarithms.

Plane Geometry.—Two courses credit. Includes the solution of simple original exercises and numerical problems; as much as is contained in Well's, Wentworth's or Stewart's Geometry; or a text-book of like grade. The student should be able to apply the principles of geometry to practical and numerical examples.

Solid Geometry.—One course credit. Includes the properties of straight lines and planes, of dihedral and polyhedral angles, or projections, of polyhedrons, including prisms, pyramids and the regular solids, of clyinders, cones and spheres, of sperical triangles and the measurement of surfaces and solids; as much as is contained in the text-books named above or other standard works of equal grade.

Plane Trigonometry.—One course credit. Solution of plane triangles, with special attention to the development of formulae and solution of trigonometrical equations. The full four courses of algebra should precede the work of this course.

Zoology and Botany.

Work in either of these subjects in order to be credited must have been accompanied by laboratory work. The exact extent of the work which should be done cannot be stated here, but for the maximum credit it should be as much as a competent teacher, trained in laboratory methods, can accomplish in one year. In estimating the time employed, two hours of laboratory work will be counted as the equivalent of one recitation period. It will be to the advantage of applicants to present their laboratory notes and drawings.

Physics.

The maximum credit (two courses) will be allowed for the requisite time spent upon any standard elementary text-book, if the work is accompanied by individual laboratory work. If insufficient individual laboratory work has been done, only one course credit will

be given, but the additional course credit will be allowed if the deficiency in laboratory work is made up at the University. It will be to the advantage of students asking full credit to present their laboratory note books.

Chemistry.

Credit for the maximum (two courses) work in Chemistry will be allowed for the completion in a satisfactory manner of any standard elementary work in Inorganic Chemistry, accompanied by individual laboratory work. The third course (elective) should be a general course in Organic Chemistry, with individual laboratory work.

Physical Geography and Physiology.

Credit for one course will be given in each of these subjects if taught in a scientific manner in an accredited or recognized secondary school. The use of a standard text should be supplemented by proper illustrative methods and proper observation.

History.

For admission to the University two preparatory courses in history are prescribed. These may be either English and American history, or Greek and Roman history. In addition to either or both of these groups, other courses may be presented to the limit of five credits.

A credit implies a course of five hours of recitation each week for twelve weeks, with careful preparation of each lesson, and the use of a standard text-book under a competent teacher. The mere reading of a text-book without intelligent direction and supplemental work is not satisfactory and is often a waste of time.

It is expected that the student will be thoroughly familiar with the important events in the periods of history he offers for credit, and will have a clear knowledge of the general line of development, both political and social. Collateral reading should always accompany the study of the text. Special attention should be given to maps.

The courses offered by the student are to be selected from the following:

History of Greece.
History of Rome.
Mediaeval and Modern History.
History of England.
History of the United States.

The following texts are suggested: Botsford's History of the Orient and Greece; Morey's Outlines of Greek History, or Myers' Eastern Nations and Greece; Botsford's, Robinson's, Myers', Morey's, Seignobos' or Allen's History of Rome; Myers, West, Robinson, Adams, Thatcher and Schwill, or Munro and Whitcomb, on Mediaeval and Modern History; Andrews, Larned, Terry, Cowan and Kendall, Wrong,

Cheyney or Montgomery on English History; McLaughlin, Adams and Trent, Fiske, McMaster. Elson, Larned, or Johnston or Channing, on the History of the United States.

In special cases where sufficient time is given to Mediaeval and Modern History, together with sufficient supplemental work, two credits may be given instead of one. Where the whole field of general history has been covered with such texts as Myers' two-volume series [(1) "Ancient History," and (2) "Mediaeval and Modern History"] credit for two courses is given (one credit for the period covered by each volume). Where Myers' one-volume "General History" is supplemented by sufficient additional reading and reports, credit for two courses is given.

Civics.

A study of the government of West Virginia and the Nation, and an outline of West Virginia history. A knowledge of elementary civics, such as is presented in Forman's "First Lessons in Civics," is presupposed. In addition the student should be familiar with the outlines of the history and government of West Virginia, read some popular treatise, such as Harrison's "This Country of Ours," and make a careful study of some good text on the National government, such as Dawes' "How We Are Governed."

Drawing.

To receive entrance credit in Free Hand Drawing instruction should have been designed to give the student an intelligent and accurate conception of form and light and shade, and the ability to express simply and directly such objects as natural and geometric form, still life, architectural details and casts from nature, the antique and life.

The training of the eye to observe with understanding rather than the teaching of any particular method of expression should be the aim of the instructor. No mechanical aids should be employed. The pencil is recommended as the simplest and most convenient medium for elementary work. It is desirable that students seeking credit for drawing shall submit their work in addition to their general certificate.

RULES CONCERNING REGISTRATION AND SCHOLARSHIP.

. The Committee on Classification and Grades has supervision of the admission, registration, advanced standing, classification and scholarship of all students. The following are the general regulations relating thereto:

Admission.

1. Certificates of entrance credits must be on the blank form prescribed by the Committee on Classification and Grades, or on a similar form, so that credit values may be readily computed.

2. The Chairman of the Committee, or any member acting in his stead, may list and certify the credits of any applicant for admission to the University when such credits are from an accredited school and in proper form, and are sufficient in number to entitle the applicant to classification as a Freshman or first year classman. Certificates from schools not on the accredited list must be approved by the Committee.

3. Certificates from schools not showing sufficient number of credits to entitle the applicant to admission to the University, will be referred to the Principal of the Preparatory School.

Registration.

1. The maximum number of courses which any student may carry is four; the minimum, three.

2. When a student registers for four full courses in any quarter the maximum number of full courses for which he may register the succeeding quarter is three.

3. No course for which credit has already been given shall be taken as one of the minimum number of courses prescribed, unless by special permission of the Committee on Classification and Grades.

4. When a student is carrying the maximum number of full courses allowable under the preceding rules, he may take in addition thereto the fractional courses offered in chapel and military science, provided that no student shall have credit for more than twelve courses in one year of three consecutive quarters, unless he be a cadet, in which case he may receive credit for not more than twelve and one-half courses in one year.

5. The Committee will consider the question of granting permission to any student to carry more than the prescribed amount of work, only on the presentation of a petition approved and signed by the class officer, and accompanied by a statement of the student's record for the preceding quarter. Such petition must be presented within seven days after the day set in the catalogue for the opening of the quarter.

6. Fractional courses in the College of Arts and Sciences will not be counted until they amount to a full course.

Special Students.

As a rule special students must be over twenty-one years of age, but in exceptional cases permission to register as special students will be given to students under that age.

Special students other than law students may be assigned at the discretion of their class officers to classes for which they apply, on their own statement that they are prepared to take the work. It is understood that admission to any class rests entirely with the instructor in charge, and further that admission to any class when so granted does not necessarily imply credit for prerequisites.

Advanced Standing.

All applications for advanced standing in college work must be made to the Committee on Classification and Grades not later than two weeks after the applicant's registration. When certificates of work done elsewhere are offered, the Committee will consider them, and if they are adjudged sufficient the credits they call for will be certified to the Registrar by the Chairman of the Committee. If no certificates are offered, or those offered are not considered sufficient for the credits asked, the applicant will be sent by the Committee to the heads of the various departments in which credit is sought, who will report after examination to the Committee, on the form furnished, the numbers, names and values of the courses, if any, for which the applicant is entitled to credit. The applicant shall, at the discretion of the Committee, have the privilege of presenting his certificates to the heads of the departments, who may give them such recognition in connection with the examination as they see proper. When the credit to be given, if any, has been determined, it shall be reported by the head of the department to the Chairman of the Committee, on the form provided, always under seal, and in no case must information of such credit be given to the applicant before the report has been sent to the Committee. Before credits in this way are certified to the Registrar, all certificates must be returned to the Chairman of the Committee, and by him placed on file.

Classification.

1. No student shall be classified as a Freshman who is conditioned in more than three Preparatory courses.

2. No student shall be classified beyond the Freshman class until all Preparatory conditions are removed.

3. No student shall be classified as a Sophomore until he has received credit for at least seven and a half courses.

4. No student shall be classified as a Junior until he has received credit for at least nineteen courses.

5. No student shall be classified as a Senior until he has received credit for at least thirty courses.

6. Classification of students for publication in the catalogue shall be made on the basis of the work to their credit at the close of the Fall Quarter each year, except in the case of students entering later in the year.

Scholarship.

1. Students are graded on a scale in which one hundred per cent. is regarded as perfect and seventy per cent. as a passing grade.

2. Any student who fails to make a standing of sixty per cent on each of two or more courses, or who fails to make an average standing of sixty per cent in all of his courses for any quarter, shall be suspended from the University for the succeeding quarter, unless he shall be relieved from the operation of this rule by the Committee on Classification and Grades. Every application to the Committee for relief from the operation of this rule must be accompanied by a full report on the case by the student's class-officer.

If a student suspended by this rule re-enters the University and again becomes subject to it, his suspension shall be indefinite.

3. If the final grade of any student for any course is below sixty it shall be recorded as a "failure," and the student must take the course again if he desires credit for it. If the final grade is sixty or over, but below seventy, it shall be recorded as a "condition," and the student shall have the privilege of a second examination, which must be taken at the time designated by the instructor, and applied for not later than three days after the opening of the succeeding quarter. If the final grade after a second examination is again below seventy it will be regarded as a "failure."

4. If a student fails to register promptly at the beginning of any quarter, a deduction from the final grade in every subject of two per cent shall be made for each exercise missed, for all absences not more than seven in number, unless such absences are excused by the Committee. If the absences are more than seven in number full credit for the course will not be given unless such absences are excused by the Committee and the work missed made up to the satisfaction of the instructor.

5. The permission of both class officer and instructor shall in all cases be necessary for the withdrawal of a student from any class, and after six weeks of any quarter have elapsed the permission of the Committee on Classification and Grades must also be obtained.

If a student discontinues a course without permission as above, the standing shall be reported to the Registrar as zero. If the student

attends the course throughout the quarter and is absent from examination, without permission, the instructor shall count the examination as zero, and report the final grade as one-half the recitation grade. If the student is unavoidably absent from examination and has a recitation grade of eighty-five or over, the instructor may report the recitation grade as the final grade in the subject. If the recitation grade is under eighty-five and the absence from examination is for reasons satisfactory to the instructor the fact will be recorded on the card returned to the class officer, and the student shall have the privilege of taking the examination at a later time.

In every case, except as above, the class card must bear a final grade, and the class officer's report to the Registrar must show a final grade.

All instructors are expected to report at the end of each term grades in all courses taken with them and not hold them over to a later term or report them as incomplete.

6. In case of the withdrawal of a student from the University the class officer shall report the fact in writing to the Committee on Classification and Grades, together with a full statement of the reasons for such withdrawal and circumstances attendant thereon. If in the judgment of the Committee the reasons given for withdrawal are insufficient the student will be dealt with as subject to the sixty per cent rule. (See rule 1 above.)

DEGREES.

Bachelor of Arts and Bachelor of Science Degrees.

A baccalaureate degree in the College of Arts and Sciences is conferred upon any student who satisfies all entrance requirements and satisfactorily completes forty-two college courses, selected in accordance with the following provisions:

The subjects of study are arranged in three groups—

I. LANGUAGE: Latin, Greek, French, Spanish, Italian, German, English.

II. SCIENCE: Mathematics and Astronomy, Physics, Chemistry. Geology, Botany, Horticulture, Zoology, Anatomy and Physiology, Bacteriology.

III. PHILOSOPHY: Philosophy, Education, History, Poltical Science, Economics, Sociology.

Requirements.

I. GENERAL REQUIREMENTS:

1. Major: 9 courses in one group, which may be
   (a) 9 courses in one subject, or
   (b) 6 courses in one subject and 3 courses in another subject.
2. Minor: 6 courses in another group.
3. Sub-Minor: 3 courses in remaining group.

A thesis may be required at the option of the class officer, in which case it shall count as one of the forty-two courses required.

II. SPECIAL REQUIREMENTS:

1. For the degree of A. B.: 2 courses of Rhetoric unless anticipated by examination; 12 courses in Latin (including required preparatory courses), or 6 courses in Greek (and the 6 preparatory courses in Latin); and 3 courses in a Modern Language.
2. For the degree of B. S.:
   (a) 2 courses of Rhetoric unless anticipated by examination; 6 courses of German and 3 courses of French, or 6 courses of French and 3 courses of German; 3 courses of Mathematics.
   (b) The major in the science group.

III. The additional number of courses necessary to make a total of forty-two courses may be selected from the general University courses, with the approval of the class officer and Committee on Classification and Grades.

Master of Arts.

The degree of Master of Arts is conferred upon graduates of West Virginia University or of other institutions of equal grade upon the following conditions:

1. The candidate must pursue studies in residence at this University for at least three quarters.

2. The application of the student to become a candidate for the degree of Master of Arts must be accompanied by the proper credentials and a general outline of the course of study.

3. If the application is accepted the Committee on Classification and Grades will appoint a sub-committee of three, consisting of the candidate's major professor and two other professors, whose duties shall be:

   (a) To arrange and approve a specific course of study.
   (b) To act as advisors.
   (c) To examine and pass upon the thesis.
   (d) To conduct the final oral examination.

4. The candidate shall present nine courses or their equivalent, at least three of which shall belong to his major subject. In no case shall

the aggregate number of major courses be fewer than twelve. The remainder of the student's work shall be in an allied subject or subjects.

5. The specific course of study must be presented to the Committee on Classification and Grades within the first four weeks after the opening of the fall term.

6. The candidate shall present a thesis showing marked attainment in his major subject. The thesis shall be submitted for the approval of the Committee on Classification and Grades, at least four weeks previous to the Commencement Day at which the degree is expected. The thesis shall be presented in such form as the Committee on Classification and Grades shall prescribe and approve.

7. If the thesis is approved, two typewritten or printed copies shall be deposited in the University Library at least one week before the degree is to be conferred.

8. The oral examination shall cover the thesis and the major courses pursued by the candidate or such part thereof as the sub-committee shall deem desirable.

9. The Committee on Classification and Grades will set the time for the oral examination and shall appoint some one to represent them at the examination. The examination must be held at least three weeks before Commencement Day.

10. The sub-committee will report their opinion of the thesis and the result of the examination to the Committee on Classification and Grades at least ten days before Commencement Day.

11. No work done before graduation will be credited toward the Master's Degree.

12. In case a student has failed to take the M. A. degree within two years after his course of study has been approved, his candidacy shall lapse and can be renewed only upon a new application to the Committee on Classification and Grades.

Master of Science.

The degree of Master of Science is conferred upon students whose baccalaureate degree has been in science, upon the same conditions as those governing candidates for the degree of Master of Arts, stated above.

Doctor of Philosophy.

The degree of Doctor of Philosophy is conferred upon Masters of Arts of West Virginia University or holders of an equivalent degree, upon the following conditions:

1. Candidates must have spent at least two years in resident study at some University, and must be in residence at this University during the last three quarters before receiving the degree. The re-

quirements of time, however, are wholly secondary. The degree will not be given for the completion of prescribed work, nor for study during a stated period, but only on the ground of long study and high attainments in one branch of learning.

2. Candidates shall choose a major subject and cognate minor work. To the latter they will devote not more than one-third of their time.

3. The candidate must prepare a dissertation on some phase of his major subject, which shall give evidence of his power of independent investigation, and shall be a contribution to knowledge. The thesis must be in creditable literary form, although for acceptance it will depend chiefly on its subject matter.

4. Not later than nine months before the date on which the candidate expects to receive the degree, he shall file with the Committee on Classification and Grades the subject of his thesis, with the approval of his major professor, and a full statement of his work in candidacy for the degree; and shall satisfy this Committee of his ability to use French and German in his investigation.

5. The thesis shall be presented to the Committee on Classification and Grades at least two months before the date on which the degree is expected. It will be referred to a committee of three, one of whom shall be a person not connected with this University. If the thesis is approved the candidate shall proceed to an examination, which shall be conducted by the instructors in charge of his subjects, with the aid of the same committee of three and the Committee on Classification and Grades. The date of the examination shall be determined by the Committee on Classification and Grades.

6. If the candidate satisfactorily passes the examination he shall before receiving the degree, deposit with the librarian of the University a typewritten or printed copy of the thesis.

7. The publication of the thesis is regarded as a part of the evidence of the candidate's fitness to receive the degree. If the thesis cannot be published before the conferring of the degree, the candidate must either furnish the Committee on Classification and Grades evidence of completed arrangements for publication, or deposit with the Treasurer of the University a sufficient sum to cover the cost of publication in approved form. When the thesis is published one hundred copies shall be presented to the University Library, and the deposit made with the Treasurer will be returned.

DEPARTMENTS OF INSTRUCTION

In the following announcements, unless otherwise noted, each course described is a full course, the class meeting five times a week, Mondays to Fridays inclusive, through one entire quarter. Whenever possible, the quarter during which the course is given, the hour, the name of the instructor, and class room, are stated at the end of the announcement of each course. For convenience it is customary to designate the courses of study by the name of the department and the number of the particular course. Thus the course in Psychology is known as "Philosophy 2;" the course in Plane Trigonometry is known as "Mathematics 9;" the course in Electrical Measurements is known as "Physics 12," etc. The abbreviations used are: W., Woodburn Hall; S., Science Hall; M., Martin Hall; C., Commencement Hall; A., Agricultural Experiment Station; S. F., South Fife Cottage; G., Gymnasium; L., Library.

NOTE—The departments of instruction are arranged in alphabetical order.

ANATOMY AND PHYSIOLOGY.

Dr. Simpson and Dr. Grant.

Credit will be given in the College of Arts and Sciences for courses in these subjects given in the College of Medicine. See announcements of that college.

BACTERIOLOGY AND PLANT PATHOLOGY.

Professor Sheldon and Mr. Post.

Credit will be given in the College of Arts and Sciences for courses in these subjects given in the College of Medicine and in the College of Agriculture. See announcement of those colleges.

BIBLICAL STUDIES.

Professor Reynolds.

Instruction in this department is given in connection with the Chapel Exercises. It consists of lectures by the instructor, an outline and notes by the students, text-book assignments, and weekly reviews.

The instruction given each quarter is equivalent to one-third of a course. There are four full courses, viz.:

1. **The History of the Bible,** origin, authorship, manuscripts, versions, the canon, and the English Bible. (Omitted in 1905-6.)

2. **The People of the Bible,** a sketch of the origin, history and characteristics of the Hebrews, Israelites, and Jews. (Omitted in 1905-6.)

3. **The Religion of the Bible,** an outline of the Hebraic or Patriarchal, Mosaic and Christian dispensations. Course 3 will include the following subjects:

1. Religion of Semites and Hebrews.....Fall, 8:00; C.
2. The Mosaic Dispensation.....Winter, 8:00; C.
3. The Christian Dispensation.....Spring, 8:00; C.

4. **The Literature of the Bible,** the books of the Bible, their authors, contents, purpose, style, and literary form. (Omitted in 1905-6.)

BOTANY.

Mr. T. C. Johnson.

1. **Elementary Botany.** This is a laboratory course, with the use of dissecting and compound microscopes, and including structure, function and classification of plants. A text book will be used for a general guide. Winter; 9 A.

2. **A continuation of course 1.** Spring; 9 A.

3. **General Botany.** A study of the cell and its various parts, contents, and functions, along physiological as well as morphological lines. The Algae, being the simplest typical plants, will serve as laboratory material for this course. Lectures, and laboratory work with the microscope. Fall; 9 A.

4. **General Botany.** The general morphology, histology, cytology, and physiology of the Fungi and Bryophytes. Especial attention will be given to the parasitic fungi. Lectures, and laboratory work. Prerequisite, course 3. Winter; 9 A.

5. **General Botany.** A study of vascular plants will be made in this course. It will consist of laboratory work, intended to bring out the relation of the flowering plant to the lower groups, with some field work. One or two lectures with four or three laboratory periods a week. Prerequisite, course 4. Spring; 9 A.

6. **Systematic Botany of the Vascular Plants.** Laboratory and field work. Prerequisite, courses 1 and 2, or an equivalent. Fall, Winter, or Spring; 9 A.

7. **Plant Physiology.** Lectures, with experiments in the laboratory and greenhouse. Prerequisite, course 5. Fall; 9 A.

N. B.—Attention is called to courses in Plant Pathology given in the College of Agriculture.

CHEMISTRY.

Professor Whitehill and Associate Professor Kortright.

1. **Inorganic Chemistry.** This course is designed for beginners, and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Fall, first section, 9:30; second section, 11:30.

2. **Inorganic Chemistry.** This course includes the study of the metallic elements, and special attention is paid to the application of chemistry to agriculture, engineering, medicine, and every-day life.

Winter, first section, 9:30; second section, 11:30.

3. **Organic Chemistry.** This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations.

Spring, first section, 9:30; second section, 11:30; 20 S.

4. **Qualitative Analysis.** A laboratory course, treating of the separation and detection of the common elements. Students taking this course are under the constant and direct supervision of the instructor, and they are expected to be able at all times to answer questions concerning the theory and practice of their work.

One-third course, Fall, Tuesday and Thursday, or Wednesday and Friday, 1:30; 22 S.

5. **Qualitative Analysis.** A continuation of course 4.

One third course, Winter, Tuesday and Thursday, or Wednesday and Friday, 1:30; 22 S.

6. **Elementary Quantitative Analysis.** This course includes a small number of simple gravimetric, volumetric, and electrolytic determinations, together with the study of the operations involved. Laboratory course.

One-third course, Spring, Tuesday and Thursday, or Wednesday and Friday, 1:30; 22 S.

7. **Analysis of Coal, Coke, and Water.** This course is designed especially for engineering students, but is open to others who have the necessary preliminary training. Laboratory course.

One-third course, Spring, Tuesdays and Thursdays, or Wednesdays and Fridays, 1:30; 21, 22 S.

8. **Toxicqlogy.** Designed especially for medical students. The course will include a study of inorganic and organic poisons, their physiological effects and antidotes. Laboratory course.

Spring, Tuesdays and Thursdays, 1:30; 21, 22 S.

9. **Quantitative Analysis.** This course is designed for students who expect to make chemistry a specialty. It includes exercises in

determining the composition of ores, minerals, and various technical compounds. Instruction is also given in assaying, gas analysis, and in the analysis of iron and steel. Exercises are selected so as to give as wide an acquaintance as possible with laboratory methods.

Fall, Winter, Spring, 1:30; 21, 22 S.

10. Iron Ores, Pig Iron, and Steel. This course includes practice in the analysis of ores, pig iron, and steel. The special methods employed are those used in the laboratories of the iron and steel works located in West Virginia and Western Pennsylvania.

Fall, Winter, Spring, 1:30; 21 S.

11. Medical Organic Chemistry. This is a lecture and laboratory course in special subjects of Organic Chemistry, such as carbohydrates, fats, proteins, and foods in general, together with certain organic amido and other nitrogenous compounds.

Winter, 10:30 to 12:30; 21 S.

12. Medical Analysis. This course includes a study and practice of all the essential analytical methods used in the modern practice of medicine. Spring, 10:30 to 12:30; 21 S.

13. Physical Chemistry. Lectures and recitations giving a non-mathematical exposition of the fundamental principles of chemical theory as developed during recent years. Fall, 11:30; 22 S.

14, 15, 16. Organic Chemistry. These courses are intended for students who wish to specialize in chemistry. They consist of two lectures or recitations and at least six laboratory hours each week throughout the year. Fall, Winter, Spring; 21 S.

17. Chemical Calculations. This course is intended to supplement the regular lecture and laboratory courses of the department. It is designed for students who wish to study the mathematical principles which are involved in chemical operations. It includes the consideration of questions involving weight and volume reactions, atomic and molecular weight determinations, the methods of calculating the results of analyses, and the various other computations of importance to the student of chemistry. Tuesday and Thursday. One-half course.

Fall, Winter, Spring, 1:30, 20 S.

20. Special Work. Chemistry offers a wide field for investigation. Special work in any of the various departments of the science may be taken in the laboratory under the direction of the instructors, and credit will be given in proportion to the amount of work accomplished.

21, 22 S.

For courses in Agricultural Chemistry, see announcements of the College of Agriculture.

ECONOMICS AND SOCIOLOGY.

Professor Reynolds.

It is the aim of this department, as at present constituted, to give elementary and practical instruction in Economics and Sociology, such as will meet the requirements of a good college course and serve as an introduction to special and advanced studies in these branches. The course will be varied from time to time, so as to give students greater scope for their studies and fuller general information in this field. The following courses will be given 1905-06:

1. **Principles of Economics**—An introduction to the study of the general subject of Political Economy. Special attention is given to the exposition of fundamental laws as operating in the production, distribution, exchange, and consumption of wealth. Instruction is given by means of text-book, recitations, lectures, and references to standard works. Fall, 8:30; 12 S.

2. **Distribution of Wealth.** The features and tendencies of modern industrial organization; rent, interest, wages, profit; profit-sharing, co-operation, socialism; capitalistic and labor combinations; union of capitalistic and labor combinations; monopolies; state regulation of corporations and industrial organizations. Text-book, lectures, assigned reading, and exercises. Winter, 8:30; 12 S.

3. **The Labor Movement.**—Labor Problems; history and status of labor; labor organizations, their origin, development, objects, methods, achievements, and prospects; industrial, social and political power and influence of labor unions; labor legislation; arbitration and conciliation. Text-book, lectures, assigned reading and exercises.

Spring, 8:30; 12 S.

4. **Money and Banking**—A discussion of the nature and functions of money; an examination of the monetary system of the United States, with a comparison of the monetary systems of the leading nations of the world; a sketch of monetary theories and proposed reforms; nature and functions of banks, and some requisites for an adequate national currency. Text-book, lectures, and assigned readings.

Fall, 2:00; 12 S.

5. **Public Finance**—A study of public expenditures, sources of revenue, systems of taxation, financial policies, public debts, and public credit. Text-book, lectures, and assigned readings. Winter, 2:00; 12 S.

6. **Public Economics**—An examination of the relations, interest, and rights of the State in regard to economic enterprises; the practicability and expediency of public ownership and control of such enterprises, with a study of the history and results of such control so far as it has been undertaken. Text-book, lectures, and assigned reading.

Spring, 2:00; 12 S.

7. **History of Economics.** An outline of the history of economic conceptions and theories from the earliest times to the present; a

sketch of economic literature in Europe and the United States; economic conditions and the rise of industries; modern industrialism, its rise, character and tendencies. Text-book, lectures, and exercises.

Spring 8:30; 12 S.

8. Historical Sociology. An outline of theories of the origin and development of the human species: of the origin, location, and characteristics of different races of men, and of the rise and growth of institutions and arts, such as language, government, religion and the various forms of industry. Text-book, lectures, assigned reading, and exercises. Fall, 10:30; 12 S.

9. Analytical Sociology. An examination of the structure and functions of contemporary society—social elements, social forces, social organs, social activities, social conditions and social products. Text-book, lectures, assigned reading, and exercises.

Winter, 10:30; 12 S.

10. Practical Sociology. An outline of the history and work of organizations for social betterment and reform; of contemporary charities, their methods and results, and of the treatment of the dependent, defective, and delinquent classes. Text-book, lectures, assigned reading, and exercises. Spring, 10:30; 12 S.

EDUCATION.

Professor Deahl.

The courses offered in this department aim to contribute to the educational influences and to the professional efficiency of the schools of the state in the following ways: 1. To interest those students who may without intending to use the knowledge in teaching, desire to study the science of education as a part of their general culture course. 2. To afford university students who wish to teach for a time after graduation the means of professional training commensurate with their academic training. 3. To furnish appropriate professional education to university students, and to any experienced teachers of suitable age and attainments, who may desire to fit themselves for teachers, principals, or superintendents of schools.

Students who elect education as their major may combine with it a limited amount of work in psychology, sociology or philosophy. The required minor may be in any department of the University, but students are urged to do sufficient work in some one department to prepare them to teach a particular subject, as English, Physics, Mathematics, etc.

1. History of Education, Ancient and Mediaeval. A study in the evolution of ideas and of educational ideals. Education as a social and political factor in the development of civilization. (1) A general survey of Oriental education—the Egyptian and the Hebrew education as types. (2) Greek education—Greek life and ideals—the develop-

ment of social bonds, individualism, reason, human culture, and moral freedom. (3) Roman education—(a) Pagan schools, (b) Christian schools, (c) Greek influences. (4) Early Christian schools and scholars. (5)Moslem education. (6) The Middle Ages—(a) the seven liberal arts, (b) the revival of Charlemagne, (c) scholasticism, (d) rise of secular schools, (e) rise of universities. Fall, 9:30; 24 W.

2. History of Education, Modern. A study of the development of modern education in Europe and America. 1. The Renaissance. 2. The Reformation. 3. Teaching organizations. 4. The development of modern educational theory—(a) humanism, (b) realism, (c) rationalism, (d) the scientific, physiological, psychological, and sociological ideas of education. 5. The development of modern national, state and city systems. 6. The development of the modern curriculum and method. Winter, 9:30; 24 W.

3. Modern Educational Theory. The purpose of this course is to trace the development of modern educational thought to the present time. A summary of the theory and practice of mediaeval education will be followed by a study of the educational doctrines as found in the lives and writings of Pestalozzi, Herbart, Froebel, and other reformers. Spring, 8:30; 24 W.

4. Philosophy of Education. This course aims to lay the basis of a scientific theory of education. The process of education is explained from the standpoint of the doctrine of evolution; the principles thus arrived at are applied from the standpoint of the history of civilization, the developing powers of the child, and the cultivation of individual and social efficiency. Fall, 11:30; 24 W.

5. Philosophy of Education. A continuation of course 4. Winter, 11:30; 24 W.

6. Foreign School Systems. The purpose of this course is to make a comparative study of the school systems of France and Germany, together with special features of other Continental systems. The practical problems will be examined from the standpoint of American education. Winter, hour to be arranged; 24 W.

7. School Administration and Supervision. This course aims to present the different phases of education—legislative, business, executive, and professional. The different forms of control as national, state, county, district, municipal. Functions of school boards, superintendents, principals, teachers. Relation of school officials—board to superintendent; superintendent to teachers, to pupils, to parents. Duties of superintendent or principal in his office, in class room, in teachers' meetings. The superintendent's opportunity to train his teachers. How to estimate a teacher's work. School management, grading, promoting, examinations, records, etc. Libraries and community co-operation as factors in educational work.

Spring, 10:30; 24 W.

8. Applications of Psychology in Learning and Teaching. This course will present the principles that control rational learning and successful teaching as far as such principles may be derived from psychological laws. A number of psychological topics—the senses, sensation, perception, memory, imagination, reason, association of ideas, apperception, interest and attention, mental development, will and habit and character—will be studied. Spring, 9:30; 24 W.

9. School Systems, British and American. This course deals with the development and present status of education in England, Scotland, Canada, and in the United States. The practical workings of the systems will be emphasized. (Not given in 1906.)

10. The Art of Studying and Thinking and Teaching. The aim of this course is to point out how to study, how to direct the work of pupils, how to train pupils to think; to find a scientific method of the recitation and to determine the essential elements of teaching. Students will formulate and discuss lesson plans, observe, so far as conditions will permit, lessons given by regular teachers, and report the same in class. Prerequsites, Philosophy 2 or Education 8, and Education 4 and 5. Spring, 11:30; 24 W.

11. Theory and Practice of Teaching English, Latin, History, Geography, etc., in elementary and secondary schools. Prerequisite, Education 10. Spring, hour to be arranged; 24 W.

12. Religious Education, with special reference to the course of study, methods of instruction, and management of Sunday Schools. Fall, Winter, Spring, one session a week, 7:30 P. M.; 16 W.

13. Seminar. The curriculum of the elementary school Winter, 2:00; 24 W.

14. Seminar. The rural school problem; the curriculum; state, county and district supervision. Spring, 2:00; 24 W.

15. Seminar. High schools and secondary education. Fall, 2:00; 24 W.

16. Seminar. Genetic Psychology. Elective for seniors and graduate students. Winter, hour to be arranged; 24 W.

ENGLISH.

Professor Armstrong, Professor Patterson, Professor Cox, Associate Professor Barbe, Associate Professor Neil, and Mr. Smith.

There are three sections in this department: (1) Rhetoric, (2) English Language and Literature, (3) Elocution.

The courses in this department are open to all students who have completed the entrance requirements in English, but there are certain prerequisites for particular courses.

(Courses 1 to 9 are preparatory.)

Rhetoric.

The aim of this division of English is proficiency in English composition, especially composition in prose.

10. Compostion. Daily themes and fortnightly long papers. Study of prose masterpieces, conferences, recitations, class criticisms of written exercises, lectures. Required of all candidates for the Baccalaureate degree in Arts and Science.

Fall, 10:30; Professor Patterson, 16 W.
Fall, 11:30; Winter, 9:30; Mr. Smith, 13 W.

11. Rhetoric.. Two or three themes a week, study of prose masterpieces, four long papers, conferences and class criticisms, lectures. Required of all candidates for the Baccalaureate degree in Arts and Science. Winter, 11:30; Professor Patterson, 16 W.
Spring, 9:30; Mr. Smith, 13 W.

12. Exposition. Study of specimens, practice, lectures. Required of all students who make English their major.

Spring, 11:30; Professor Patterson, 16 W.

13. Argumentation. Study of specimens, practice, lectures.

Fall, 11:30; Professor Patterson, 16 W.

14. Description and Narration. Study of specimens, practice, lectures. Winter, 11:30; Mr. Smith, 13 W.

15. Themes. An advanced course. Daily themes are required. The class will meet the instructor twice a week for criticisms and lectures; conferences. Spring, 11:30; Mr. Smith, 13 W.

16. The Essay. The essayists of the nineteenth century are studied as illustrating the uses of the essay form and its growth in our literature. Writing of typical essays.

Fall, 9:30; Professor Patterson, 16 W.

17. The Short Story. Examples of the various forms are read and methods analyzed. The development of the short story during this century is shown. Practice in writing. (Omitted in 1905-6.)

Winter, Professor Patterson, 16 W.

18. The Poem. The history of versification. Lectures. Investigation of assigned topics. Composition and criticism.

Spring, 9:30; Professor Patterson, 16 W.

19. The Novel. Examples of the various froms are read and methods analyzed. The development of the novel is shown. Practice in the invention and exposition of situation, character, etc.

Winter, 9:30; Professor Patterson, 16 W.

20. The Letter. Some great writers seen in their letters, and a study of their use of this form of composition. Practice in writing.

Fall, hour to be arranged; Mr. Smith, 13 W.

21. The Critical Review. The history and principles of literary criticism. Study of specimens. Practice in writing.

Spring, hour to be arranged; Mr. Smith, 20 W.

22. The Translation. The greatest translations in different periods are examined. Lectures. Writing of translations. A student electing this course must have some acquaintance with at least one foreign language. More benefit may be obtained by the student who has previously taken English 18.

Spring, 8:30; Professor Patterson, 16 W.

23. The Drama. A study of the different forms of the drama in its most successful periods; its development; and a view of its present requirements. Composition and criticism.

Winter, 10:30; Professor Patterson, 16 W.

24. Style. A study of style in nineteenth century prose. Writing of papers in imitation of the masters of prose style. Lectures.

Spring, 10:30; Professor Patterson, 13 W.

25. Prose in the Fifteenth, Sixteenth and Seventeenth Centuries. The beginning of style in English prose.

Fall, 9:30; Mr. Smith, 13 W.

26. Style in the Eighteenth Century. The development of an artistic sense in the writing of English prose.

Winter, hour to be arranged; Mr. Smith, 13 W.

English Language and Literature.

The aims of this division of English are: (a) a scientific knowledge of the origin and development of the English language; (b) a general acquaintance with English literature; (c) a specific knowledge of certain great authors, periods, and movements in English literature.

30. Old English. Bright's Anglo-Saxon Reader. The essentials of Anglo-Saxon Grammar. Translations. Required of all students who make English their major. Not elective for Freshmen.

Fall, 8:30; Professor Cox, 23 W.

31. Old English. Beowulf. Translation, with due attention to text, metre, literary history, etc. Prerequisite, English 30.

Winter, 8:30; Professor Cox, 23 W.

32. Old English. Caedmon. Cynewulf. Translations. History of Anglo-Saxon Period. Prerequisite, English 30.

Spring, 8:30; Professor Cox, 23 W.

33. Middle English. Period from 1130 to 1350. Critical reading of selections. Prerequisite, English 30. The class will meet during the Spring term at an hour to be arranged. [Omitted in 1905-6]

Professor Cox, 23 W.

34. Historical English Grammar. History of the language. Development and decay of inflexions and formative endings. Historical syntax, etc. Prerequisite, English 30. The class will meet during the Spring term at an hour to be arranged.

Professor Cox, 23 W.

35. The English Language. This course presents a general survey of the history of the English language. It will include a study

of the sources of our vocabulary; the growth of the literary language; slang and legitimate speech; euphemism; folk-etymology; transferrence of meaning, etc. Kittridge's "Words and their Ways in English Speech" will be taken as the basis of the course.

Fall, 9:30; Professor Armstrong, L.

36. General Survey of English Literature. An introduction to the study of literature. It will include an historical view of the whole field of English literature and the close and criticial study of a few classics from each of the great periods of literary development. Required of all students who make English their major.

Fall, 8:30; Professor Armstrong, L.

37. Chaucer. The Canterbury Tales. During the first part of the term the work will be chiefly linguistic with interpretation of passages. The latter part of the term will be devoted to a somewhat rapid reading. Such considerations of form, sources, etc., as necessary to a clear understanding of what is read. Required of all students who make English their major. Winter, 9:30; Professor Cox, 23 W.

38. The Pre-Shakespearean Drama. This course considers the origin and the development of the English drama, through the miracle plays, the moralities, the interludes, and the plays of Shakespeare's immediate predecessors. A few of the plays will be read critically with regard to language, metre, etc. Lectures. (Omitted in 1905-6.)

Fall, 11:30; Professor Cox, 23 W.

39. Shakespeare. The aim of this course is to develop the power to read Shakespeare with intelligent appreciation. A small number of plays will be studied carefully with special attention to exact interpretation and to those peculiarities of language in which Shakespearean usage differs from our own. Required of all students who make English their major.

Fall, 10:30; Professor Cox, 23 W.

40. Shakespeare. This course is a continuation of course 39. Required of all students who make English their major.

Winter, 10:30; Professor Armstrong, L.

41. Shakespeare. A literary course, intended for purposes of general culture. About one third of the plays will be read, with attention to characters, plot development, etc.

Spring, 10:30; Professor Armstrong, L.

42. Milton. This course will consider his poems and the Areopagitica. Early part of the work linguistic; interpretation of passages; consideration of form, sources, style, etc. Lectures.

Spring, 9:30; Professor Cox, 23 W.

43. The Elizabethan Period. From Tottel's miscellany to the death of Spenser (1557-1599). Among the authors studied are Wyatt, Surrey, Roger Ascham, Foxe, Lyly, Sidney, Marlowe, Hooker, and Spenser. Special attention will be given to Spenser. Shakespeare not considered. Fall, 11:30; Professor Cox, 23 W.

44. English Literature from the death of Spenser to the closing of the Theaters (1599-1642.) Among the authors studied are Bacon, Raleigh, Ben Jonson, Chapman, Beaumont and Fletcher, Middleton, Webster, Massinger, Donne, Herrick, Burton, Ford, and Shirley. Shakespeare and Milton not considered.

Winter, 11:30; Professor Cox, 23 W.

45. English Literature of the Queen Anne Period. The course will deal with those writers who are especially representative of the classical spirit in English literature. Among these may be mentioned Dryden, Swift, Addison, Steele, DeFoe, Pope, and Gay.

Spring, 11:30; Professor Cox, 23 W.

46. English Literature from the death of Swift to the publication of the Lyrical Ballads (1745-1798). Gray, Collins, Johnson, Goldsmith, Cowper, Sheridan, Burke, Burns, and Blake, with some attention to lesser writers. (Omitted in 1905-06.)

Fall, 9:30; Professor Armstrong, L.

47. English Literature from the publication of the Lyrical Ballads to the death of Scott (1798-1832). Wordsworth, Coleridge, Byron, Shelley, Keats, Hazlitt, Lamb, De Quincy, Jane Austen, and Scott; some attention to lesser authors. (Omitted in 1905-6.)

Winter, 9:30; Professor Armstrong, L.

48. English Literature from the death of Scott to the death of Tennyson (1832-1892),—the poets. Tennyson, Browning, Arnold, Mrs. Browning, Swinburne, Rossetti, and Morris.

Spring, 9:30; Professor Armstrong, L.

49. English Literature since 1832,—the prose writers. Carlyle, Macauley, Ruskin, Arnold, Dickens, Thackeray, Elliot, Stevenson, and others. (Omitted in 1905-6.) Spring, 9:30; Professor Armstrong, L.

50. The English Bible. A study of the English Bible as literature; discussion of its literary forms and interpretation of some of its masterpieces. Fall, 10:30; Professor Armstrong, L.

51. The Short Story. The short story as a form of literature. A study of its development and some of its types from Poe to Kipling.

Winter, 9:30; Professor Armstrong, L.

52. American Literature. A brief outline of its historical development and a study of selected works of representative authors.

Spring, 8:30; Professor Armstrong, L.

53. The Novel. The study in this course will include the historical development of the novel; its significance; relation to modern life; the types; tendencies; a wide reading of novels; reports; lectures. (Omitted in 1905-6.)

Winter, 11:30; Professor Cox, 23 W.

54. English and Scottish Popular Ballads. This course will consider the beginnings and development of popular poetry; a wide reading of English and Scottish ballads; interpretation and criticism; reports, by students, on assigned topics. Lectures. This class will

meet twice a week,—on Mondays and Thursdays. (Omitted in 1905-6.) Spring, 11:30; Professor Cox, 23 W.

55. English Literature. Study of an author. The entire production, or the most important work, of some selected author will be studied to gain a complete view. The author to be studied in 1905-6 is Edgar A. Poe. Winter, 8:30; Professor Armstrong, L.

Elocution.

The aim of this division of English is artistic expression in all the forms of public speaking.

(NOTE.—The necessity of English literature in connection with the work in elocution cannot be too often impressed. The professor of elocution will recommend no student as a teacher of elocution or as a public reader unless he has had, in addition to his courses in elocution as his major, at least six courses in English literature.)

Requirements for Certificates. Students applying for a certificate in elocution must have reached full senior standing in the College of Arts and Sciences of this University or in some school of recognized equality; all courses in class elocution shall have been completed and a course of private lessons pursued under the direction of the professor of elocution. The amount of private work required will be determined by the individual need of the student.

The work in this department is along the line of science as well as that of art. Until recently but little attention was paid to the underlying principles of expression. The subject was taught almost entirely as an imitative art. Progressive thinkers have now so developed and systematized the constituent elements of voice and action that the study of oratory is taking a place by the side of the sister sciences in the best curricula of our country. In recognition of this fact the University gives credit, as an elective study, to work done in oratory and elocution, in proportion to the number of hours taken. The following courses are offered, each occupying one college term.

1. Principles of Elocution. A study of vocal organs and muscles; methods of breathing; vocal culture for purity, strength, compass, flexibility and sustaining power. Study and application of vocal elements; form, degree, stress, quality. First principles of action. Fall, 2:00; Winter, 3:00; Professor Neil, 14 M.

2. Principles of Elocution. Vocal culture continued. Study and drill in the vocal elements; pitch, degree, change, melody, time, quantity, pause, movement. Completion of principles of action. Analysis, preparation and rendition of selections. Criticism of application of elements. Spring, Winter, 2:00; Professor Neil, 14 M.

3. Literary Analysis and Rendition. Development of individuality in voice and action. Lectures on analysis, mind concentration, memory, scene building and interpretation. Individual study of selections from every style. Rendition of prescribed selections and criticism by members of class and instructor.

4. **History of Oratory.** A philosopohical survey of the origin and the history of the oration. A study of the leading orators of the various periods. Analysis by each student of the noted speeches of different times and countries. Class reviews of the style, diction, depth, clearness, climax, and persuasive power of the orators studied.

Fall, 3:00; Professor Neil, 14 M.

5. **Original Orations.** Lectures on styles of address, kinds of discourse, construction of speeches, ancient, mediaeval and modern oratory, and the sources of eloquence. Preparation and delivery of topical speeches and original orations.

Winter, 9:30; Professor Neil, 14 M.

6. **Argumentation and Debate.** Lectures on extempore speaking, principles of debate, preparation of briefs, arrangement of argument, team work and rebuttal. Extempore speeches and debates required of every student. Fall, 10:30; Professor Neil, 14 M.

7. **Advanced Argumentation and Debate.** Continuation of course 6. The object of this course is to give the student a mastery over the perplexing technicalities of argumentative laws, to develop a clear, direct, forceful, and persuasive style of speaking, and to perfect the art of team debating. Winter, 10:30; Professor Neil, 14 M.

8. **English Classics.** Lectures on Shakespeare, Dickens, Browning, Tennyson and others. Study, interpretation, and memoriter rendition of one of Shakespeare's plays. Interpretative analysis of one other play and of selections from other English masters.

Spring, 10:30; Professor Neil, 14 M.

Private Lessons.

In addition to the class work in elocution, a thorough and comprehensive course of individual instruction is offered. Each lesson occupies a full one-hour period, and is devoted to a single individual.

This branch of the work is **indispensable** to all who would follow any line of public speaking. The instruction may be taken either as single lessons or in courses of one college term each. The latter method is preferred and encouraged.

Tuition for Private Lessons.

Single Lessons,.....	$ 2.50
Per College Term, 1 per week.....	20.00
Per College Term, 2 per week.....	35.00

(NOTE.—At the option of the head of the department a thesis may be required of all candidates for the A.B. degree, who have chosen English as their major. In exceptional cases this thesis may be an experiment in writing a play or a novel.)

(NOTE.—The instructors in English hold themselves ready to assist and advise competent graduates who may propose plans of special study which meet the approval of the department.)

FINE ARTS.

Assistant Professor Leonard and Mrs. Hubbard.

Credit will be given in the College of Arts and Sciences for courses not to exceed five in number, taken in the School of Fine Arts. In case credit is asked for the maximum number of five courses, these must include the courses in the history of art. See announcement on a later page.

GEOLOGY AND MINERALOGY.

Professor Brown and Mr. Whitham.

1. Physical Geography. An elementary course for which no credit is given toward a college degree, but which must be taken before students are admitted to other courses in this department, unless they have its equivalent elsewhere.

Spring and Fall, 10:30; Mr. Whitham, 30 S.

2. Meteorolgy. Man and nature; the economic products of the earth; meteorological instruments and methods. Open to any University student. Davis' "Physical Geography." Prerequisite, Physical Geography and Physics 1. Winter, 10:30; Mr. Whitham, 30 S.

3. General Geology. A general course in dynamic and structural geology. Economic applications of geology will receive special attention. Numerous excursions will be made. The University is situated in a mining region, and within five miles of the western fold of the Appalachian mountains; the advantages for the practical study of geology are therefore almost unequaled. Recitations, lectures, and field work. Le Conte's "Elements of Geology." Prerequisites, Chemistry 1, 2, Physics 2.

Fall, 11:30; Spring, 11:30; Professor Brown, 30 S.

4. Palaeontology. The progress and development of plants and animals through the different ages of the earth. For illustration in this subject the University has an equipment of many thousands of fossils, casts, and models. Recitations and lectures. Le Conte's "Elements of Geology." Prerequisites, Zoology 1 and Botany 2.

Winter, 11:30; Professor Brown, 30 S.

5. Economic Geology. Common rock and vein-forming minerals; Physical geography and geology of the United States; the origin of ore deposits; mining terms and methods; metalliferous deposits. Recitations and lectures. Tarr's "Elements of Economic Geology." Prerequisite, Geology 3.

Fall and Spring, 10:30; Professor Brown, 30 S.

6. Economic Geology. The fuels—coal, oil, and natural gas—soils, clays, and fertilizers, precious stones and building stones. The University is in the midst of a great coal-producing region, while oil

and gas wells are within easy reach. Recitations and lectures. Tarr's "Elements," and Merrill's "Stones for Building and Decoration." Prerequisite, Geology 5. Winter, 10:30; Professor Brown, 30 S.

7. Mineralogy. Crystallography; physical qualities of minerals; description of minerals consisting of basic elements to the silicates. The University has a good collection of minerals for practical instruction. Open to all University students. Recitations, lectures, and practical determinations. Moses' "Elements of Mineralogy."

Fall, 8:30; Spring, 8:30; Professor Brown, 30 S.

8. Mineralogy. The silicates and hydrocarbon compounds and their determination. Moses' "Elements of Mineralogy."

Winter, 8:30; Professor Brown, 30 S.

GERMANIC LANGUAGES AND LITERATURES.

Professor Truscott and Mr. Porterfield.

NOTE.—The text-books named in the following courses may be changed at any time, but the grade and character of the work outlined in each course will remain the same.

Students taking German as a major will be required to take as a minor three courses in Anglo-Saxon and three courses in the history of Germany.

1. Elementary German. The object of the course is to acquaint the student with the elements of the grammar, to give him a reading knowledge of the easiest German prose and as much practice as possible in pronunciation. Thomas' "Grammar," Part I; Super's "Elementary German Reader."

Fall, first section, 9:30; Mr. Porterfield; second section, 10:30; Mr. Porterfield. Winter, 11:30; Professor Truscott, 19 W.

2. Elementary German. A continuation of course 1. Reading of easy prose and poetry. Several poems will be memorized. Super's "Elementary Reader," Grimm's "Maerchen," Hervey's Exercises to Thomas' Grammar."

Winter, first section, 9:30; Mr. Porterfield; second section, 10:30; Mr. Porterfield. Spring, 11:30; Professor Truscott, 19 W.

3. Elementary German. A continuation of course 2. Reading, dictation. Elementary work in composition, accompanied by a review of the main points of the grammar. "Immensee;" "Hoeher als die Kirche;" "L'Arrabiata;" Hervey's Exercises to Thomas' Grammar."

Fall, 11:30; Spring, first section, 9:30; second section, 10:30; Mr. Porterfield, 19 W.

4. German Prose. Rapid reading of prose by modern authors to familiarize the student with the more general phases of the language.

Fall, 8:30; Mr. Porterfield, 19 W.

5. Composition. Translation of English prose into German. Discussion of grammatical points in connection with the translation.

Dictation. Study of the irregular verbs. Harris' "Prose Composition;" Thomas' "Grammar," Part II. Winter, 8:30; Mr. Porterfield, 19 W.

6. German Poetry. Translation of two long poems. Reading and memorizing of several well-known poems. Von Klenze's "Deutsche Gedichte;" "Hermann und Dorothea;" "Trompeter von Saekkingen."

Spring, 8:30; Mr. Porterfield, 19 W.

7. Advanced Prose. Reading of historical and narrative prose. Freytag's "Aus dem Staat Friedrichs des Grossen;" Scheffel's "Ekkehard;" Sudermann's "Frau Sorge."

Fall, 8:30; Professor Truscott, 18 W.

8. Advanced Composition. Dictation. Oral practice based on Bronson's "Colloquial German;" Jagemann's "Prose Composition."

Winter, 8:30; Professor Truscott, 18 W.

9. Heine. Study of his life. Reading from his prose and poetry. "Reisebilder;" "Die romantische Schule;" "Das Buch der Lieder."

Spring, 8:30; Professor Truscott, 18 W.

10. Lessing. Study of his life. Reading of "Miss Sarah Sampson;" "Minna von Barnhelm;" "Emilia Galotti;" "Nathan der Weise."

Fall, 9:30; Professor Truscott, 18 W.

11. Goethe. Study of his life. Reading of "Werther's Leiden;" "Iphigenie auf Tauris;" "Tasso;" "Egmont."

Winter, 9:30; Professor Truscott, 18 W.

12. Schiller. Study of his life. Reading of "Don Carlos;" "Wallenstein;" "Wilhelm Tell."

Spring, 9:30; Professor Truscott, 18 W.

13. History of German Literature. This course deals in outline with the history of the literature, its beginnings and development and lays stress upon the prominent authors and chief epochs. Assigned private reading in the various standard histories of German literature. Translation and discussion of pieces representative of the different writers and periods. Weekly themes in German on assignd subjects.

Fall, 10:30; Professor Truscott, 18 W.

14. Continuation of course 13.

Winter, 10:30; Professor Truscott, 18 W.

15. Continuation of course 14.

Spring, 10:30; Professor Truscott, 18 W.

16. Scientific German. Intended for students in the scientific courses who have had at least a year of elementary German. The purpose is to teach the students to read at sight scientific articles in German. Hodges' "German Science, Reader;" "Cohn's "Ueber Bakterien." (Not offered in 1906.)

Winter, 11:30; Mr. Porterfield, 19 W.

17. Journalistic German. Newspaper and magazine articles on various subjects. Prehn's "Journalistic German;" Lodeman's "Germany and the Germans," New Yorker Staatszeitung. (Not offered in 1906.) Spring, 11:30; Mr. Porterfield, 19 W.

20. Middle High German—Grammar. Bachmann's "Mittelhochdeutsches Lesebuch." Readings and translation into modern German from "Das Nibelungenlied, "Der arme Heinrich;" Walter von der Vogelweide. History of the literature.

Two or three times a week throughout the year at an hour to be arranged. (Omitted 1905-6.) Professor Truscott, 18 W.

Oral Practice.

23. The purpose of the course is to give the student some facility in understanding spoken German and to help him express, so far as possible, his own thoughts in German. Free reproduction of subject-matter read or heard. Reading aloud. Sentence intonation. Dictation. Punctuation. German script. Prerequisite, German I., II and III.

Fall, 11:30; Professor Truscott and Mr. Porterfield, 18 W.

24. Continuation of course 23.

Winter, 11:30; Professor Truscott and Mr. Porterfield, 18 W.

25. Continuation of course 24.

Spring, 11:30; Professor Truscott and Mr. Porterfield, 18 W.

GREEK LANGUAGE AND LITERATURE.

Professor Green and Miss Johnson.

1. White's First Greek Book (Chapters I-XL). This course is for beginners. The work covers pronunciation, accent, declensions and conjugations, etymology of words, and simple translations from Greek into English and from English into Greek to illustrate the principles of grammar as given in the text. Fall, 8:30; Miss Johnson, 7 M.

2. First Book (Completed). This is a continuation of course 1. Prerequisite, Greek 1. From the very beginning much attention is paid to the vocabulary. Daily exercises in sight reading. The first book of the Anabasis is read in connection with courses 1 and 2.

Winter, 8:30; Miss Johnson, 7 M.

3. Xenophon's Anabasis (Books II., III., and IV.). Prose composition. A fuller knowledge of the grammar is required. Prerequisites, Greek 1 and 2. Goodwin's "Xenophon's Anabasis;" Goodwin's "Greek Grammar;" Pearson's "Greek Prose Composition."

Spring, 8:30; Miss Johnson, 7 M.

4. Select Readings. Selections from the works of Xenophon and Herodotus. Continued sight reading. Review of Greek accidence and further study of syntax. Fall, 10:30; Professor Green, L.

5. Lysias' Orations. A study of the form of Greek orations and Lysias's style. Collateral library work assigned to each student. Sight reading. Prerequisites, Greek 1, 2, 3, and 4, or their equivalent.

Winter, 10:30; Professor Green, L.

6. Homer's Iliad or Odyssey (Books I., II., and III.) and Homeric Verse. All the text is read metrically. Etymology, mythology and

prosody receive special attention. Seymour's "Iliad." Collateral reading: Jebb's "Introduction to Homer;" Gladstone's "Time and Place of Homer." Prerequisites, Greek 1, 2, 3, 4, 5.

Spring, 8:30; Professor Green, L.

7. Lucian's Shorter Dialogues. Those who have had two years or more of Greek are eligible to membership in this course. "The Dialogues of the Dead" and other short dialogues will be read. "Selections from Lucian," by Williams. Winter, 10:30; Professor Green, L.

8. Aeschines Against Ctesiphon. The aggressions of Philip of Macedon, the political institutions of Greece and the Constitution of Athens are studied as an introduction to course 15. "Aeschines against Ctesiphon," by Richardson. Fall, 9:30; Professor Green, L.

9. Plato's Apology and Crito. A study of Athenian methods of judicial procedure and criminal jurisprudence will accompany the reading of the Apology. Dyer's "Apology and Crito."

Fall, 11:30; Professor Green, L.

10 and 11. Greek Literature in English Translation. Courses of lectures tracing the development of artistic forms of literary expression among the Greeks. Some of the masterpieces of Greek literature are read in standard English translations. Frequent written reports by members of the class upon assigned readings. These courses are intended for mature students of considerable experience in the study of language and literature, but no knowledge of the Greek language is required. Capps' "Homer to Theocritus." Collateral reading: Jebb's Greek Literature, Mahaffey's "History of Greek Literature." Course 10 will be devoted to epic and melic poetry and the choral ode. Course 11 will deal with the drama and with the development of literary prose.

Course 10, Fall, 8:30; Course 11, Winter, 8:30; Professor Green, L.

12. Myths and Legends. A study of those myths and legends upon which a large number of ancient and modern classics are based and to which frequent reference is made in English literature. No knowledge of Greek language necessary. Prerequisite for major credit, Greek 5. Guerber's "Myths of Greece and Rome."

Spring, 8:30; Professor Green, L.

13. Aristophanes. The reading of one or more of the plays will be supplemented by lectures on the development of Greek comedy, and the influence of the stage upon the social and political life at Athens.

Winter, 10:30; Professor Green, L.

14. Euripides. One or more of the tragedies will be translated in class. Other plays by the same author will be read before the class by the instructor or studied by members of the class with the aid of standard translations. Incidental study of Greek metric.

Winter, 11:30, Professor Green, L.

15. Demosthenes on the Crown. Stress is laid on correct use of synonyms, Greek rhetoric, and oratory. Frequent sight translations. "Demosthenes on the Crown," by Goodwin.

Winter, 9:30; Professor Green, L.

16. Aeschylus' Prometheus Bound. History of the development of dramatic art among the Greeks. Study of the adaptation of epic and lyric forms to the purpose of the drama. Much attention is given to the metrical systems of the lyric passages. Allen's "Prometheus Bound of Aeschylus." Winter, 8:30; Professor Green, L.

17. The Antigone of Sophocles. A study of the Greek trilogy. Lectures on the Greek theatre. D'Ooge's "Antigone of Sophocles."

Spring, 10:30; Professor Green, L.

18. New Testament Greek. John's Gospel and the Acts of the Apostles. In the translation, pure, idiomatic English of the nineteenth century is required. Westcott and Hort.

Spring, 9:30; Professor Green, L.

19. Selected Odes of Pindar. Much attention is given to mastering, not theoretically, but practically, the form. The poems are read rhythmically over and over with the purpose of developing an appreciation of the lyrical perfection of these exquisite works of art. Seymour's "Odes of Pindar." Spring, 11:30; Professor Green, L.

20. Seminary in Greek. Papers and discussions on assigned topics. Larger opportunities for original investigation and specialization. Graduate students and those well advanced in their college course, who desire to become specialists in this department, should take this course. Credit is given for one-third of a course each quarter, or more, if the work accomplished justifies it.

Fall, Winter and Spring, bi-weekly, 2:00-4:00 P. M.; Professor Green, L.

HISTORY AND POLITICAL SCIENCE.

Professor Callahan and Professor Fleming.

The courses offered in this department are presented under the general titles: (1) European History, (2) English History, (3) American History, and (4) Political Science.

Instruction is given by lectures, text-book work, assigned collateral readings; preparation of papers, syllabi and maps; special reports, recitations and informal conferences.

At fortnightly meetings of those who are associated in the work of the department, various topics of historical and political interest are discussed.

Courses in European History.

(For preparatory courses, see announcement of the Preparatory School.)

Students who select European History as their principal study are advised to take at least one year in French or German in the early part of the University course.

Among the books of reference, which every student will often need to consult, are Ploetz's Epitome of Universal History and a good historical atlas. [Putzger's Historischer Schul-Atlas is one of the best.]

9. History of Oriental Civilization. This is a general culture course, and a fitting introduction to the study of history. It begins with a survey of primitive society and traces the rise and development of human institutions. It directs especial attention to the early institutional history of China, Japan, India, Chaldea, Assyria, and Egypt, gives a survey of their contributions to civilization and traces the development and influence of contact with the civilization of the West. It closes with a sketch of Hebrew history, an institutional study of the Bible, and the organization of the Christian Church. (Omitted 1905-6.) Fall, 11:30; Professor Callahan, 4 M.

10. History of Greece and Greek Institutions. This course traces the history of Greece to the Roman Conquest. Its prominent features relate to political and constitutional development, social and political life, and interstate and international relations. Its purpose is also to give students some acquaintance with the philosophy, literature, and art of Greece and to lead them into the spirit of Greek civilization.

Winter, 11:30; Professor Fleming, 6 M.

11. History of Rome and Roman Institutions to the Fall of the Western Empire. The rise, expansion and downfall of the Roman Republic and a general survey of the more important events under the Empire. Military history is subordinated to such subjects as the development of institutions, the struggles for legal equality, social and economic problems, social and political transformation, party struggles, provincial government, organization of the Empire, the growth of Roman law, the rise of Christianity, effects of contact with the barbarians, and the causes of the disintegration of the Western Empire. Especial attention is given to Rome's contributions to civilization.

Spring, 11:30; Professor Fleming, 6 M.

12. Mediaeval History. [Prerequisites: Courses 9, 10, and 11.] This course presents the great movements and institutions (the Church, the Gild, the Manor, etc.) of the period extending from Teutonic migrations to the close of the fifteenth century; the first attempts at organizing barbaric society; the rise of the Papacy, ecclesiastical institutions and the expansion of Christianity; the origin and character of feudalism, struggle between the Papacy and the Empire; causes and results of the crusades; the development of commerce; the rise of modern states; schools and culture. (Omitted in 1905-6.)

Fall, 10:30; Professor Fleming, 6 M.

12a. History of Germany in the Middle Ages. [Prerequisite, course 11.] The Barbarian invasions and the first attempts at organizing barbaric society; Christianity and Mohammedanism; the Merovingians and the rise of the Carlovingian Monarchy; Germanic institutions; the origin, organization and influence of the Holy Roman Empire. (Omitted in 1905 6.)

Fall, 1904, 10:30; Professor Fleming, 6 M.

12b. History of Mediaeval France. [Prerequisite, course 11.] A study in early municipal, social, industrial and economic life and development in France; the evolution and consolidation of the French monarchy; the origin and growth of its institutions. The transformation from feaudalism to the modern state.

Fall, 1905, 10:30; Professor Fleming, 6 M.

13. The Renaissance and the Reformation; 1300-1648. [Prerequisite, course 12.] A transition from mediaeval to modern history. The development of the forces of modern civilization. Beginning with a survey of the economic, political and intellectual revolutions resulting from the crusades, the growth of commerce, the rise of cities and nations, the revival of learning, and voyages of discovery, this course gives the student general knowledge of the rise and decline of the Papal hierarchy, the renaissance in Italy and Germany, the forerunners of the Protestant revolution, the leaders and results of the Reformation in the principal European states, the Council of Trent and the counter-reformation, the religious wars to the Treaty of Westphalia, and the relation of protestantism to culture and civilization. (Omitted in 1905-6.) Winter, 10:30; Professor Fleming, 6 M.

14. Modern History. A rapid survey of the political, social, economic and territorial changes of the last four centuries. (Omitted in 1905-6.) Spring, 10:30; Professor Fleming, 6 M.

14a. History of Germany Since 1648. The rise, organization and expansion of Prussia, and rivalry with Austria; the Silesian and Seven Years' Wars; national and international policy of Frederick the Great, and the decline after Frederick; the Confederacy of the Rhine; the policy and reforms of Baron von Stein; the development of national feeling; the confederation of 1815-66; political and constitutional reforms; steps in the establishment of German freedom and unity; the new German Empire. (Omitted in 1905-6.) Spring, 1905, 10:30; Professor Fleming, 6 M.

14b. History of the French Absolutism, the French Revolution and the Napoleonic Wars. A study of the social and political conditions of the Ancient Regime. Particular attention is given to the economic history of France after the Reformation; the policy of Henry IV., Sully, Richelieu, and Mazarin; paternalism, and decline of prosperity under Louis XIV.; inflation and bankruptcy under Louis XV.; the rise of the economists. Results of a century

and a half of absolutism. From 1789 to 1815, more attention is given to political history. At the close of the course, several lectures are given on French political history since 1815.

Winter, 1906, 10:30; Professor Fleming, 6 M.

14c. History of Modern Europe. [Prerequisite, course 14.] A study of particular periods and institutions—such as the Puritan Revolution, the absolute monarchy in France, causes of the French Revolution, the Napoleonic wars, European revolutions in the nineteenth century, Russia and the Eastern Question.

15. History of Continental Europe Since 1814. [Prerequisite, course 14.] A study of the political evolution and reform, the constitutional and industrial progress, the political struggles and revolutions, and the national and international questions and adjustments of the last century. Spring, 10:30; Professor Fleming, 6 M.

16. European History by Biographies. ("Men are the makers of history.") A course designed especially for teachers in the common schools. The great events of European history are grouped around the life stories of great leaders and heroes, who were the representative men of their periods, or were pioneers of a later period. Practical suggestions are given for bringing to intermediate pupils in the most concrete way the great milestones, the most picturesque landscapes, and the most dramatic movements of history.

Summer, or evening lectures; Professor Callahan, 4 M.

17. Seminary and Conference Courses.

(1.) History of European Diplomacy and Foreign Policy. (For advanced students who have had thorough courses in the history of modern Europe.) A course in the international politics and diplomatic history of the states of modern Europe.

(2.) The Eastern Question and International Relations in Orient. [Prerequisites, courses 9, 14, and 15.]

(3.) History of European Political Institutions. (For advanced students who have had thorough courses in European history.) The historical development and nature of the political institutions of the principal European states.

(4.) Historical Jurisprudence. A seminary course for advanced students. A view of the development of legal institutions and principles.

(5.) Historical Conference. A seminary course for practical work in historical investigation. For advanced students who show special ability to do research work on special topics.

(6.) Bibliography and Method. A library and conference course in scientific methods of historical investigation and interpretation, and in presenting the results after collating and refining. The course includes a review of historical writing from the earliest times, and an examination of the attempts to interpret the deeper significance of history (philosophy of history).

Courses in English History.

18. History of England to the Tudors. A course in the general and institutional history of England. Special attention is given to political, economic, and social life and development, and the more important subjects in constitutional history are considered, showing how England learned to govern herself. [This course and courses 19 and 20 furnish a good foundation, or back-ground, for the study of American history.] Fall, 10:30; Professor Callahan, 4 M.

19. History of England from the Tudors to the Present Time. A continuation of course 10. The upbuilding of the British Empire.

Winter, 10:30; Professor Callahan, 4 M.

20a. English Constitutional Law and History. [Prerequisite, courses 18 and 19.] A systematic study of the origin and development of the constitution and political institutions of England, and of the fundamental principles of English Constitutional law, from the earliest settlements to the present time. This course prepares the student for the courses in American constitutional history. It traces the struggles and steps by which England learned to govern herself, and to govern others. It includes a careful study of early Germanic institutions, the Anglo-Saxon constitution, the Norman administrative system, Angevin reforms, the struggles for the charter, the rise of Parliament, the rise of the Privy Council, the Tudor dictatorship and the Stuart despotism, the cabinet system and party government, the establishment of democracy and the enfranchisement of the nation. The most important documents are studied. Especial attention is given to the elements, nature, and working of the English Government as it exists today.

(In alternate years) Spring, 10:30; Professor Callahan, 4 M.

20b. English Social and Industrial History. [Prerequisite, courses 18 and 19.] A survey of the facts of social and industrial evolution and their relation to political history and the interpretation of present economic conditions. After a brief review of the ancient and mediaeval times, the remainder of the course is devoted to the industrial and social development in England from the earliest times to the present. Special attention is given to such topics as: the manor system; the merchant and craft guilds; the growth of national economy; the rise of the factory system; and the industrial revolution.

Spring, 10:30; Professor Callahan, 4 M.

Courses in American History.

(For introductory courses, see announcement of the Preparatory School.)

21. American Colonial History (1492-1776). The economic and political conditions in Europe before the search for new trade routes; the evolution of discovery and settlement; the growth of setlements

into colonies; the origin and development of American institutions; views of colonial life; the conflict with new France; relation of the colonies to England; the gradual adaptation of European civilization to American conditions, resulting finally in separation of the colonies from the mother country. Fall, 9:30; Professor Callahan, 4 M.

22. American Political History (1776-1829). The Formation of the Union. The Revolution, the Critical Period, the formation of the constitution, the organization of the government, the struggle for neutrality and the development of nationality, the expansion of the Union, and the triumph of democracy. Special attention is given to political and constitutional development, and to international relations, but industrial and social growth is also treated.

Winter, 9:30; Professor Callahan, 4 M.

23. American Political History (1829-1869.) Division and Reunion. Economy questions and the slavery contest; the growth of sectional differences, culminating in the secession movement; the Civil War and its problems, the overthrow of the slave power, and readjustment; a brief survey of the political and social questions since the Civil War, and of the development of the resources of the country.

Spring, 9:30; Professor Callahan, 4 M.

[In courses 21, 22, and 23, while special emphasis is laid on political and constitutional history, much attention will be given to social and economic conditions.]

24. Reconstruction and Later American History. (1) Conditions in the Southern States in 1865; the problems of Reconstruction; the various theories; the struggle between Congress and the President over Reconstruction; negro suffrage and white disfranchisement; misgovernment during Reconstruction; the overthrow of the Reconstruction governments and the undoing of Reconstruction. (2) Social, economic, and political conditions and changes in the United States from 1865 to the present time.

Fall, 9:30; Professor Fleming, 6 M.

25. History of American Territorial Expansion (1775-1904). A study of the evolution and development of the American expansion policy—from a few weak settlements to a world power. The causes, movements, motives, methods, politics and diplomacy connected with the actual occupation and acquisition of territories, and the projects or propositions looking toward territorial acquisitions, dependencies or establishments; the rapid Western movement of strenuous, self-reliant pioneers; settlement and political organization of the acquisitions (status and government); constitutional and administrative questions, etc. Influence of the "West" in American history. The public domain; its management and settlement, and its influence on the economic development of the United States. Spring; Professor Callahan, 4 M.

26. History of American Diplomacy and Foreign Policy (1776-1904). A general survey of the negotiations, treaties, arbitrations, congresses,

etc., to which the United States has been a party—and of the fundamental principles of American policy. A study of the most important phases of American international relations; the settlement of 1763; the French alliance of 1778; negotiations of the treaty of 1873; foreign relations from 1783 to 1797 (Washington's policy of neutrality); the Louisiana question; international questions leading up to the war of 1812; negotiations of the treaty of Ghent, and the Florida treaty; evolution of the Monroe doctrine; the slavery question in international relations; negotiations and treaties with Mexico; Cuba in national politics and international relations; questions arising from secession; the Trent affair; post-bellum policy and diplomacy.

America's influence on international law and diplomacy; the State Department and its most distinguished secretaries. [See also Political Science 37.]. Spring, 8:30; Professor Callahan, 4 M.

27a. American Development. A practical course on the prominent characteristic movements and fundamental facts of American development. Especially suited to the needs of teachers in secondary schools, who desire a clearer knowledge of the meaning and scope of history, and some training in the use and interpretation of historical materials. Summer, 8:00 A. M.; 4 M.

27b. American History by Biographies. Summer. Also given as a course of evening lectures, usually in Winter.

Professor Callahan, 4 M.

28. Economic and Social History of the United States. Economic and social conditions in Europe in the sixteenth and seventeenth centuries; influence on the founding of the colonies; social and industrial conditions in the colonies; disappearance of the frontier; gradual industrial change and corresponding social change; the growth of the democratic spirit; influence of westward expansion, of immigration; revolution in methods of transportation; present day problems.

Winter, 9:30; Professor Fleming, 6 M.

29. Slavery in America. The origin of the institution; slavery in the Orient, Greece, Rome and Continental Europe; English slavery; development of the institution in America; its sectional tendencies; the plantation system; life among the negroes; sentiment of whites in regard to negro slavery; social and economic effects of slavery; emancipation and abolition; reconstruction of industry; present problems growing out of slavery.

Spring, 1906,(and in alternate years), 9:30; Professor Fleming, 6 M.

30. The American Revolution and the Making of the Constitution (1775-1789). The controversy between the colonies and England; the political philosophy of the period; the State constitutions; the Continental Congress; the formation and defects of the Articles of Confederation; the "critical period"; and the evolution of the American Constitution. Careful study is given to the debates in the Constitu-

tional Convention of 1787, and the political pamphlets, etc., of the period. (A seminary course.)

Winter, 8:30; Professor Callahan, 4 M.

31. Selected Topics in the Study of American Institutions. Prerequisites, courses 21, 22 and 23.

32. A Study of Bibliography and Method. A library and "historical conference" course. Twice a week. Prerequisites, courses 21, 22 and 23. To be given in alternate years in the Winter or Spring Quarter and oftener if desired. 4 M. or Library.

33. Seminary in American History. [For the years 1902-5, courses of lectures were given upon the following subjects:

(1.) The American Expansion Movement.
(2.) The Monroe Doctrine.
(3.) American Relations with the Far East.
(4.) Inter-American Relations.
(5.) The American Cuban Policy.
(6.) American Relations with Canada.

Students were required to take notes, to investigate assigned topics and to become acquainted with the original materials which were accessible. Proper attention was given to scientific methods of historical research, construction and interpretation.

Professor Callahan, 4 M. or Library.

34. A Historical Conference is sustained for advanced students who have had sufficient college training in history, and who show special ability to do research work.

(The attention of students taking American history is invited to the announcements of the Scott and Bryan prizes, on pages 34 and 35.

Courses in Political Science.

In all these courses, students should have a clear knowledge of the outlines of general history—and especially of modern political history. For the advanced courses they are also expected to have a reading knowledge of German or French.

35. The American Federal Government at Work. A practical study of the actual workings of the government and politics of the United States, both state and national, ("Actual Government as applied under American conditions"). The growth, machinery, operations and functions of the government, the relations, rights and duties of citizens, and the policies of state on great public questions and problems. The structure of the Federal government and its relations to the states; the President and the Cabinet; the Senate and the House in action; th national judiciary; the American party system, and party machinery; the use and abuse of parties; political topics of current interest. Especial attention is given to the realities of governments and institutions—to the personal interest and personal action which underlies

constitutions and statutes and vitalize governments—and to the investigation of the intimate concerns of actual life which stimulate sympathy and interest in human affairs, deepen the sense of civic obligation, and lay the foundations for a deeper study of the political, social and industrial life and problems which conduce to the common human weal. Instruction is given in the use of illustrative materials which can be easily obtained by any school. The subject is studied not as a "heartless abstraction," but as a subject closely related to the personal experience of each student.

Open to students who have a familiar knowledge of American history, and have had the preparatory course in Civics. (Hart: Actual Government as Applied Under American Conditions. Bryce: The American Commonwealth. See also History 30.)

Fall, 11:30, Professor Callahan; 4 M.

36. Comparative Constitutional Government. A historical study of the development of the political institutions and constitutional governmens of continental Europe; a comparative study of Greek, Roman and Teutonic polity and of the governments and parties of the leading countries of modern Europe. Especial attention is given to recent European politics. Open to advanced students who have had thorough courses in European history.

[Woodrow Wilson: The State. A. L. Lowell: Governments and Parties of Modern Europe.] (Omitted in 1905-6.)

Winter, 9:30; Professor Fleming; 6 M.

37. Contemporary International Politics. (See also History 26.)

Winter, 11:30; Professor Callahan; 4 M.

38.—Science of Government.

Spring, 11:30; Professor Callahan; 4 M.

39. History of Political Theory. An advanced course in the history of the science of politics. The political writings of Aristotle, Machiavelli, Hobbes, Rousseau, Spencer, etc. A study of the nature, purpose and functions of the State and of the comparative merits of the various forms of government.

40. Local Government and Administration (with special reference to municipal problems).

41. Seminary in Politics. This course is intended for advanced students who wish to do special research work, on selected topics. Credit is given in proportion to the work accomplished.

42. Constitutional Law. See announcements in the College of Law.

43. International Law. See announcements in the College of Law.

HORTICULTURE.

Mr. T. C. Johnson.

Credit will be given in the College of Arts and Sciences for courses in this subject given in the College of Agriculture. See announcement of that college.

LATIN LANGUAGE AND LITERATURE.

Professor Douthat.

The seven divisions here presented are intended to be consecutive, but the courses in each division are not graded. Hence a student may enter upon any course of a division, provided he has had at least two courses of the division preceding or their equivalent. If, therefore, he cannot be present at the opening of the Fall or Winter Terms, there is nothing to hinder his entrance upon the courses offered for the Spring Term, and then at the beginning of the following year, he can take at least one of the courses of the preceding year, and still have time for two courses of the following year.

For courses 1 to 9, inclusive, see announcements of the Preparatory School.

I. Roman Anthology.

10. Cicero's Amicitia and Senectute, with study of synonyms. Fall, 9:30; 21 W.

11. Horace's Odes and Epodes, with scanning. Winter, 9:30; 21 W.

12. Mediaeval Latin Hymns, with scanning, or **Horace's Epistles.** Spring, 9:30; 21 W.

Latin composition the last two weeks of each term.

II. Roman Philosophy.

13. Cicero's De Officiis or De Finibus, with study of synonyms. Coordinate with course 5 in Philosophy. Fall, 8:30; 21 W.

14. Seneca's Moral Essays, with a study of his times. Coordinate with course 5 in Philosophy. Winter, 8:30; 21 W.

15. Lucretius' De Rerum Natura, with a study of his doctrines. Spring, 8:30; 21 W.

Latin composition the last two weeks of each term.

III. Roman History.

16. Cicero's Letters, with a study of the great orator's times. Fall, 10:30; 21 W.

17. Livy, Book XXI or XXII, with a study of Roman history, or, if thought advisable, Sallust and other selections from history. Coordinate with course 11 in Department of History. Winter, 10:30; 21 W.

18. **Tacitus: Germania and Agricola, of his Historiae or Annales,** with a study of the early Empire. Spring, 10:30; 21 W.

Latin composition the last two weeks of each term.

IV. Roman Drama.

19. Plautus: Captivi, Trinummus, and Rudens, with a study of the Roman stage. Fall, 11:30; 21 W.

20. Terence: Adelphoe, Phormio and Heauton Timoreumenos, with study of Greek and Roman drama. Winter, 11:30; 21 W.

21. Seneca: Medea, Hercules Furens, and Oedipus, with study of tragedy in translation from Greek into Latin. Spring, 11:30; 21 W.

Latin composition or study of manuscripts for the last two weeks of each term.

V. Roman Satire.

22. Horace's Satires, with a study of his times. Fall; 21 W.

23. Juvenal's Satires, with a study of contemporaneous history. Winter; 21 W

24. Seneca's Apokolokuntosis, and Petronius' Cena Trimalchionis, with a study of Nero's times. Winter; 21 W.

Readings, papers, and lectures will take the place of composition in this division.

Hours to be arranged with instructor.

VI. Latin Literature in English Translations.

25. Study of Translations from Virgil or Horace or the Dramatists or Satirists, with preparation of papers and supplemented by informal lectures. Winter, 21 W.

26. Greek and Roman Mythology, or Roman Life, with papers and informal lectures. Winter, 21 W.

27. Roman Political Institutions, with papers and informal lectures, and the Latin epigraphical documents. Spring; 21 W.

These three courses are open to all students who have had at least three courses of college Latin.

Hours to be arranged with instructor.

VII. Comparative Philology.

28. Greek and Latin or other Indo-European Languages Compared, the study being introduced through New Testaments, which can now be had in many tongues.

Term and hour to be arranged with instructor.

This course will be open to those who have already had at least three courses in two different Romance or Teutonic languages.

All examinations for advanced standing in Latin must include Latin composition.

MATHEMATICS.

Professor Stewart and Miss Johnson.

(Courses 1 to 6 are preparatory.)

7. Solid Geometry Geometry of the prisim, pyramid, cylinder, cone, and sphere; practical exercises and problems; Well's Solid Geometry. Fall, 11:30; Spring, 9:30; Miss Johnson, 7 M.

8. University Algebra. Binomial theorem any exponent; theorem of undetermined coefficients; summation of series; differential method; theory and practice of logarithms; logarithmic and exponential series; construction of logarithmic tables; the general equation of the nth degree, and solutions of higher numerical equations.

Fall, 10:30; Winter ———; Spring, 8:30; Miss Johnson, 7 M.

9. Plane Trigonometry. Development of formulae; solution of trigonometrical equations; anti-trigonometrical functions; practical exercises and problems. Prerequisite, Course 8. Well's Revised Trigonometry. Fall, 9:30; Winter, 10:30; Professor Stewart, 14 W.

10. Spherical Trigonometry. Development of formulae; practical exercises and problems, with applications to navigation and astronomy. Bowser's Treatise on Trigonometry.

Spring, 2:00; Professor Stewart, 14 W.

11. Plane Analytical Geometry. Cartesian and polar coordinates; properties of conics: circle, parabola, ellipse, and hyperbola; tangents and normals; poles and polars; Nicol's Analytical Geometry.

Fall, ——; Winter, 8:30; Spring, 10:30; Professor Stewart, 14 W.

12. Analytic Geometry. Higher plane curves; general equation of the second degree; geometry of three dimensions; ellipsoids, paraboloids, hyperbolic paraboliod. Nicol's Analytic Geometry.

Fall, 2:00; Professor Stewart, 14 W.

13. Determinants. Nature and properties of determinants; Laplace's and Cauchy's method of development; differentiation of determinants. Peck's Determinants.

Winter, 2.00; Professor Stewart ,14 W.

14. Theory of Equations Complex numbers; solution of higher equations; Cardan's method for cubic equations; Sturm's theorem; Horner's and Newton's methods of approximation; Fourier's theorem; Macknie's Algebraical Equations.

Spring, 2:00; Professor Stewart, 14 W.

15. Differential Calculus. Differentiation of algebraic and transcendental functions; Taylor's and Maclaurin's formulae; evaluation of indeterminate forms; maxima and minima; tangents and normals; asymptotes; involutes and evolutes; curvature; curve tracing; Taylor's or Osborne's Differential Calculus.

Fall, 8:30; Winter, 11:30; Professor Stewart, 14 W.

16. Integral Calculus. Integration of algebraic and transcendental functions; areas between limits; surfaces and solids of revolution; double and triple integration; center of mass; moment of inertia; intrinsic equations of curves. Taylor's or Osborne's Integral Calculus.
Winter, 9:30; Spring, 11:30; Professor Stewart, 14 W.

17. Elementary Calculus. This is a course designed for students who do not desire courses 15 and 16, but who wish to have some knowledge of the fundamental notions of this branch of mathematics. Many practical problems will be introduced. Prerequisite, course 11. Smith's Elementary Calculus.
Hour to be arranged to suit students; Professor Stewart, 14 W.

Astronomy.

1. Descriptive Astronomy. Young's General Astronomy.
Winter, 3:00; Professor Stewart, 14 W.

2. Descriptive Astronomy. Continuation of course 1. Young's General Astronomy. Spring, 3:00; Professor Stewart, 14 W.

MUSIC.

Director Spence.

Credit not to exceed five courses is given in the College of Arts and Sciences for courses in the science and history of music given in the School of Music. See announcement on a later page.

PHILOSOPHY.

President Purinton and Professor Deahl.

1. Logic and Principles of Science. A study of the processes of conception, judgment, and reasoning; nature and laws of experience, induction and subsidiary processes, such as observation, experiment, classification, and hypothesis; inductive methods; imperfect inductions and fallacies; elements of deduction and formal logic. Recitations, lectures and notes by the instructor, and references to standard authorities. Prof. Deahl. Fall, 8:30; 14 S.

2. Psychology. An introductory course devoted to the study of the states of consciousness and mental processes, with an outline of the structure and functions of the nervous system; the principles and methods of mental training and the application of psychology to education. Lectures, with seminar work in standard authors.
Dr. Purinton. Fall, 9:30; 10 S.

3. Ethics. A survey of the mental processes that control conduct; fundamentals of morality, the moral faculty, ground of obligation, moral standard, moral law, moral sanction; moral culture; practical

morality; personal and social duties; a review of historical ethics. Lectures, with reference to standard text-books.

Dr. Purinton. Winter, 9:30; 10 S.

4. Christian Evidence. An outline of the historical and moral proofs concerning the Christian system. A brief comparative view of other religious systems. Dr. Purinton. Spring, 9:30; 10 S.

5. History of Philosophy. An introduction to the study of philosophy, with an outline of the history of the leading philosphers and schools, ancient, mediaeval, and modern. Lectures, with references to best standard works. Fall, 2:00; 14 S.

6. Mediaeval Philosophy. Especially the influence of Christianity upon philosophy and vice versa, and the rise and content of patristic philosophy. Winter, 2:00; 14 S.

7. The Philosophy of the Renaissance. A special study of the transition from mediaeval to modern philosophy, the struggle against theological domination, and the rise of the natural sciences. Lectures, recitations, and collateral reading. Spring, 2:00; 14 S.

PHYSICAL TRAINING.

Professor Chez and Mrs. Chez.

The purpose of the Physical Department is the development or restoration of the physical well-being of students attending the University.

A student's success in college depends upon his mental vigor and this in turn is based upon his bodily health. There is no part of the mental training he receives that is independent of the support of the body.

The director examines each student and prescribes exercises for his individual need. Special attention is given to those who are constitutionally weak.

An exhibition of class and apparatus work will be given each year.

Men's Department.

Professor Chez.

Student Leaders of Squads.

Arthur Fancher—Indian clubs, Wands.
Lee Cole—German horse.
Chas. Smith—Horizontal bar.
W. E. Cather—Parallel bars.
S. Jackson—Buck.
C. Myers—Tumbling.
J. Gibson—Mat work.
J. Keely—Vaulting bar.

The work is graded as much as possible to suit the needs of the students. Careful attention is given to correction of bad postural

habits and to all-around development and training of the body. Drills are given in free-hand exercises, dumb-bells, Indian clubs, and wands.

Heavy gymnastics, which includes German horse, parallel bars, horizontal and vaulting bars, tumbling, wrestling, and fencing, is given to the advanced classes.

Recreation in the form of games, such as basket ball, three-deep, slipper, etc., follows the regular class work. Play conduces to health, physical development and mental relaxation; therefore these games are encouraged after class work.

Women's Department.

Mrs. Chez.

The Swedish system is taught and a graded course pursued. First year students, after a careful anthropometric examination, are given developing exercises in Swedish gymnastics, together with such special work as is suited to individual needs. Following this foundation work advanced exercises are added, which include drills with dumb bells, Indian clubs, and wands, and the Gilbert fancy steps. Athletic games, such as basket ball and field hockey, are begun the latter part of the first year, and continued throughout the course. Third and fourth year students, only, are eligible to the Women's "Varsity" teams.

Schedule.

Fall Term.

2—3: 3—4: Monday, Wednesday, Thursday.
3—4: Tuesday, Friday.

Public school teachers and pupils.

9:30—10:30: 10:30—11:30 Saturday A. M.

Winter Term.

11:30—12:30: 2—3: Monday, Wednesday, Friday.
2—3: 3—4: Tuesday, Thursday.

Public school teachers and pupils.

9:30—10:30: 10:30—11:30 Saturday A. M.

Spring Term.

2—3 3—4: Monday, Tuesday, Wednesday, Thursday, Friday.

PHYSICS.

Professor Hodges and Mr. Whitham.

1. Elementary Physics. Lectures and recitations four times per week and laboratory one period of two hours per week. Rowland and Ames' "Elements of Physics," with other works for reference. Prerequisites, Algebra 3 and Plane Geometry.

Section A. Preparatory to course 6.
Fall; Tuesday, Wednesday, Thursday, Friday, 8:30; Mr. Whitham; 11 S.
Laboratory hours to be arranged.

Section B. General course for students who do not expect to take course 6
Fall, Monday, Wednesday, Thursday, Friday, 8:30; Mr. Whitham; 11 S.
Laboratory, Friday, 1:30—3:30.

2. Elementary Physics. Continuation of course 1, which is prerequisite.

Winter, 8:30; Laboratory hours to be arranged; Mr. Whitham; 11 S.

(Division into sections as in course 1.)

4. Experimental Physics. A laboratory course exclusively, consisting of elementary quantitative experiments. Open to students who do not take course 6. Sabine's "Laboratory course in Physics." Prerequisites, Physics 1 and 2, or equivalent work, and Plane Trigonometry.

May be taken in the Fall, Winter and Spring quarters. One-third course each quarter. Tuesday, Thursdays, 1:30; Mr. Whitham; 1 S.

6. General Physics. Mechanics. Lectures and recitations. Required of candidates for Engineering degrees. Ames' "Theory of Physics." Prerequisite, Analytical Geometry.

Fall, Monday, Wednesday, Friday, 9:30; Professor Hodges; 11 S.

6a. Laboratory course to accompany course 6. Required of candidates for Engineering degrees. Two exercises weekly.

Hours to be arranged. Mr. Whitham; 14 S.

7. General Physics. A continuation of course 6. Heat, electricity, magnetism. Lectures and laboratory work.

Winter, Monday, Wednesday, Friday, 9:30 and 1:30; Professor Hodges; 11 S.

7a. Laboratory course to accompany course 7.

Hourse to be arranged. Mr. Whitham; 14 S.

8. General Physics. A continuation of course 7. Sound and Light. Lectures and laboratory work.

Students who have not taken course 7 may be admitted to course 8, if they have taken course 6 and 6a.

Spring, Monday, Wednesday, Friday, 9:30; Professor Hodges; 11 S.

8a. Laboratory course to accompany course 8.

Hourse to be arranged. Mr. Whitham; 14 S.

12. Electrical Measurements. Advanced laboratory work. The student uses measuring instruments of precision, sensitive galvonometers, apparatus for accurate measurement of resistance, current,

electro-motive force, induction, magnetic properties of iron, etc. Prerequisite, Physics 7, Mathematics 16.

Hours to be arranged. Professor Hodges, 14 S.

15. Agricultural Physics. Required of agricultural students. Open to all other college students. Prerequisite, Physics 1, or equivalent work elsewhere. King's "Physics of Agriculture" will be used as a text. Spring, 8:30; Mr. Whitham, 11 S.

17. Dynamos and Motors. Direct current machinery. Elements of the general theory of dynamos and motors. Lectures and laboratory work. Prerequisite, Physics 7. Course 12 in part may be substituted for the laboratory work of this course. Sheldon's "Dynamo-Electric Machinery." Winter, 10:30; Professor Hodges, 11 S.

18. Dynamos and Motors. Alternating current machinery. Prerequisite, course 17. Spring, 10:30; Professor Hodges, 11 S.

20. Special Work. Students desiring to pursue any line of special work in the department of Physics will be given opportunity to do so to the extent that the time of the instructors and the laboratory equipment will permit.

ROMANCE LANGUAGES AND LITERATURES.

Professor Beziat de Bordes and Mr. Holden.

French.

1. Elementary Course. Three sections.

(a.) Grammar, reading, practice in pronunciation and oral understanding. Beziat de Bordes' Elements of French. Aldrich and Foster's French Reader. Fall, 9:30; Mr. Holden, 2 M.

(b.) Rapid reading course. The aim of this course is to enable students to acquire, in a short time, a reading knowledge of French for research work in other departments. No special attention is paid either to oral or to composition work. Beziat de Bordes' Elements of French; Aldrich and Foster's French Reader; Malot's Sans Familie (Thieme Edition). Fall, 10:30; Mr. Holden, 2 M.

(c.) Conversation Course. In this course the work is carried on entirely in French from the outset, through the natural, or direct method of instruction. Fall, 10:30; Professor Beziat de Bordes, 11 W.

2. Elementary Course. A continuation of course 1.

(a.) Beziat de Bordes' Elements of French completed. Malot's Sans Famille (Thieme Edition). Winter, 9:30; Mr. Holden, 2 M.

(b.) Halevy's L' Abbe Constantin; Scientific French Reading; Selections from French history. Winter, 10:30; Mr. Holden, 2 M.

(c.) Conversation based on Halevy's L' Abbe Constantin; Balzac's Eugenie Grandet. Winter, 10:30; Professor Bezat de Bordes, 11 W.

3. Elementary Course. A continuation of course 2.

(a.) Composition based upon Merimee's Colomba. About's Le Roi des Montagnes; Feuillet's Le Roman d' un jeune homme pauvre.

Spring, 9:30; Mr. Holden, 2 M.

(b.) Moliere's Le Bourgeois Gentilhomme; Voltaire's Le Siecle de Louis XIV; Victor Hugo's Hernani; Current scientific literature.

Spring, 10:30; Mr. Holden, 2 M.

(c.) Conversation based upon George Sand's Nanon; About's Les Mariages de Paris. Composition: Larousse's Cours de Style.

Spring, 10:30; Professor Beziat de Bordes, 11 W.

4. Fiction of the Nineteenth Century. Works of Daudet, Dumas, Balzac, Loti, Gautier, etc. Composition based upon Larousse's Cours de Style. Oral practice. Exercises in dictation continued through course 5. For students who have had one year of French.

Fall, 11:30; Mr. Holden, 2 M.

5. A Continuation of Course 4. Winter, 11:30; Mr. Holden, 2 M.

6. An Introduction to Classic Writers. The work is based upon Demogeot's Textes Classiques de la Litterature Francaise (Hachette et Cie.). Outside reading assigned. Spring 11:30; Mr. Holden, 2 M.

7a. French Literature of the Seventeenth Century. A rapid survey of the works of Corneille, Racine, La Fontaine, Boileau, Bossuet, etc. Lectures, reading and reports.

Fall, 11:30, Professor Beziat de Bordes, 11 W.

7b. French Rhetoric. The work is based on Larousse's "Cours de Style." Material for discussion is furnished by Warren's "French Prose" and Canfield's "French Lyrics." Hours to be arranged.

7c. Dramatic French. Analytic study of French dramatic masterpieces; style, elocution, expression. A reading knowledge and fair pronunciation of French are prerequisites. Hours to be arranged.

8. French Literature of the Eighteenth Century. Voltaire, Rousseau and the Encyclopedistes, studied both from the literary and historical standpoint. Lectures, reading and reports.

Winter, 11:30; Professor Beziat de Bordes, 11 W.

9. French Literature of the Nineteenth Century. Napoleonic writers; Chataubriand and the Romantic School; the Parnassian poets. Lectures, readings and reports.

Spring, 11:30; Professor Beziat de Bordes, 11 W.

NOTE.—Courses 1 to 10, with the exception of 7c, will be given in regular order. Students having completed course 9 will be admitted to any of the following electives:

10. Moliere, His Life and Works. All the plays of Moliere will be read and summarily discussed.

11. Moliere. A critical and comparative study of his works.

12. Racine. His works, his models and his imitators.

13. **Victor Hugo.** His lyric and satiric poetry as the expression of his personality.

14. **Victor Hugo.** His novels.

15. **Victor Hugo.** His dramas.

16. **French Writers of the Second Half of the Nineteenth Century.**

17. **French Civilization and its Influence on French Literature.**

18. **Historical French Grammar.**

19. **Old French Readings.** La Chanson de Roland; Aucassin et Nicolette.

20. **Mediaeval French Dramatic Literature.**

21. **French Dialects.** Gillieron's "Atlas Linguistique." Special attention given to southern dialects.

22. **Old Provencal Readings.** Appel's "Provenzalische Chrestomathie." (2nd edition.)

NOTE.—Courses 7 to 18 will be given in French. Courses 18 to 22 inclusively, may be given in English or French.

Cercle Dramatique Francais. In connection with the French work of the Department the Cercle Dramatique offers students an opportunity to improve their pronunciation and general understanding of the language by taking part in the presentation of French plays given at the end of each quarter. Those wishing credit for this work will have to comply with the requirements in course 7c.

Spanish.

Professor Beziat de Bordes.

1. **Elementary Course.** Grammar and reading, with practice in pronunciation, conversation, and composition. Loiseaux' "Spanish Grammar and Reader." Fall, 9:30; 11 W.

2. **Intermediate Spanish.** Conversation based on readings from the works of modern Spanish authors. Composition. Winter, 9:30; 11 W.

3. **Modern Spanish Literature.** Careful study of works by modern Spanish and Spanish-American writers, such as Nunez de Arce, Perez-Galdos, Compoamor, Heredia, Trueba, etc. Spring, 9:30; 11 W.

4. **Calderon.** A rapid reading and discussion in Spanish, of Calderon's masterpieces. Fall, 8:30; 11 W.

5. **Cervantes.** A critical study of Don Quijote de la Mancha. Winter, 8:30; 11 W.

6. **Old Spanish Literature.** El Cid. Spring, 8:30; 11 W.

Italian.

Mr. Holden.

1. Elementary Course. Grammar, reading and compositions. It is desirable that students who take this course should have some knowledge of Latin. Fall, 8:30; 2 M.

2. Elementary Course. A continuation of course 1. Winter, 8:30; 2 M.

3. Elementary Course. A continuation of course 2. Spring, 8:30; 2 M.

ZOOLOGY.

Professor Johnston.

The courses in this department are intended to prepare students to become investigators and teachers in zoology, and to serve as a means of general culture. A wide field is offered for valuable investigations in the organization, functions, habits, and evolution of animal life. Upon the results of such investigations rest to a large extent the sciences of medicine, psychology, and sociology; and the study of zoology gives an insight into the methods of these allied sciences not to be obtained by any other means. Of especial interest to teachers are courses 1, (2, 3,) 4 and 5.

1, 2 and 3. General Zoology. The laboratory work is arranged from the standpoint of general biology, beginning with the cell and one-celled animals, and going on to forms which illustrate the fundamental types of animal structure. The study of structure is conducted with constant reference to function and adaptation. The lectures of the fall term deal with the structure and physiology of protoplasm and the cell, cell division, reproduction, rise of sex, alternation of generations, symbiosis, commensalism, parasitism, etc. The lectures of the winter and spring terms deal with the general principles of classification and the descriptive zoology of invertebrates and vertebrates. Prerequisite, ability to write clear, concise, and correct English.

Fall, Winter, Spring; 17 W.

Lectures, M., W., 8:30. Laboratory, six hours per week to be arranged.

4. Principles of Biology. This course includes the presentation of the chief facts of organic evolution and the discussion of theories of the origin of species, heredity, etc. Attention is given to unsolved problems and to methods of investigation. Lectures, assigned readings and reports. Winter. Room and hour to be announced.

5. Nature Study. A course for students who are preparing to teach in the public schools. It deals with the purpose, materials and methods of nature study work. Lectures, field excursions, preparation

and presentation of work by members of the class. Prerequisite, courses 1 and 4. Spring, 17 W. Hour to be announced.

6, 7 and 8. Vertebrate Morphology. The three courses form a continuous year's work in the comparative embryology and anatomy of vertebrates. The laboratory work includes the study of germ cells, maturation and fertilization, cleavage, gastrulation; the further development of the salamander and the chick; and the dissection of types of vertebrates. The lectures of the fall term deal with the maturation and fertilization of the germ cells, the principles of heredity, and the early development of vertebrates through the formation of germ layers, foetal membranes, and the fundaments of organs. The lectures of the winter and spring terms deal with the development and adult anatomy from the comparative point of view, with especial reference to the progressive modification of organs and the adaptation to environment. Four courses credit.

Lectures, M., W., 10:30. Laboratory, twelve hours per week to be arranged.

Fall, Winter, Spring; 17 W.

9. Methods in Zoology. A practical course in the methods of collecting, hatching and rearing, preserving, injecting, making microscopic preparations, etc. Open to all majors in zoology who have had courses 1, 2 and 3, and to others by special permission. Credit in proportion to the work done. Hours to be arranged.

Fall, Winter, Spring.

11. Comparative Neurology. General anatomy and physiology of the nervous system. Nervous functions, nerve elements, the neurone theory, etc. Lectures and demonstrations. Prerequisite, course 3.

Fall, 17 W.

12. Comparative Neurology Continued. The nervous system of invertebrates. Lectures and laboratory work. Prerequisite, course 11.

Winter, 17 W.

13. Comparative Neurology Continued. The nervous system of vertebrates and man. The course aims to present the essentials of the morphology and evolution of the central and peripheral nervous system and sense organs with especial reference to function. Prerequisite, course 12 or courses 1—4 in human anatomy and histology.

Spring, 17 W.

16. Human Embryology. A special course open only to medical students. See the announcement of the College of Medicine.

19. Current Literature. The advanced students and instructors form a Journal Club which meets weekly for reports and discussion of recent literature. One course credit for the year.

20. Research Work. Properly qualified students may undertake research upon the morphology or physiology of vertebrates or invertebrates. Credit in proportion to the work done.

THE COLLEGE OF ENGINEERING AND MECHANIC ARTS

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.
FREDERICK LINCOLN EMORY, B.S., M.M.E., M.E., Professor of Mechanics and Applied Mathematics.
CLEMENT ROSS JONES, M.M.E., Professor of Mechanical Engineering.
WILL H. BOUGHTON, C.E., Professor of Civil and Mining Engineering.
RUSSELL LOVE MORRIS, C.E., Professor of Civil and Mining Engineering.
EDWIN FAYETTE CHURCH, Jr., S.B., Assistant Professor of Mechanical Engineering.
RUFUS A. WEST, Assistant in Metal Working and Stationary Engineer.
THOMAS HOWARD CATHER, Foreman of Machine Shop.
JOHN B. GRUMBEIN, Foreman of Wood Shop.

Other Instructors Giving Courses in This College.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.
JAMES SCOTT STEWART, M.S., Professor of Mathematics.
SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.
THOMAS EDWARD HODGES, A.M., Professor of Physics.
FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.
ANDRE BEZIAT DE BORDES, Ph.D., Professor of Romance Languages and Literatures.
FREDERICK LAWRENCE KORTRIGHT, D.Sc., Associate Professor of Chemistry.
WILLIAM JACKSON LEONARD, Assistant Professor of Fine Arts.
CHARLES COLLIER HOLDEN, A.B., Instructor in Romance Languages.
ALLEN W. PORTERFIELD, A.M., Instructor in German.
WILLIAM HENRY WHITHAM, A.M., Assistant in Physics.

ORGANIZATION.

This College comprises the following departments:

Civil and Mining Engineering;

Mechanical and Electrical Engineering and the Mechanic Arts;

Mechanics and Applied Mathematics.

The requirements for admission and graduation, the arrangement of the courses of instruction, and such other work as pertains to this College, are provided for by its Faculty, in conjunction with the University Council.

BUILDINGS AND EQUIPMENT.

All instruction in engineering subjects is centralized in the Mechanical Hall. This building is located on the southeast corner of the campus and fronts the athletic field. It really consists of two buildings connected by covered passageways. The main building is 168½ feet long and three stories high with a well-lighted basement running under its entire length. In this building are the lecture, recitation, drawing, and instruction rooms of the various engineering departments, the machine and woodworking shops, and the mechanical and electrical laboratories. The rear building, known as the power plant, is only one story in height and contains the boiler and engine room, the forge shop and the foundry.

The drawing rooms, shops and laboratories have been equipped with modern apparatus and machinery, affording ample accommodation for practical and experimental work.

In the drawing-rooms are collections of models of bridges, furnaces, structures, mechanisms; engines, pumps, valves and valve gear; plaster cast and descriptive geometry models; sets of charts, State and Government maps, surveys, photographs, engineering specifications, drawings, tracings, and blue prints.

Each workshop is equipped with suitable benches, measuring instruments, tools, shop-appliances, and machines such as are ordinarily installed in engineering colleges and commercial shops.

The Engineering laboratories are fitted with standard guages and measuring, calculating and recording instruments, with apparatus and appliances for qualitative and quantitative experimental work in civil, mechanical, steam, hydraulic, and electrical engineering.

The testing laboratory is equipped with apparatus and machines for testing cement, iron, steel, brick, stone, and other materials of engineering. The power plant equipment consists of different types of steam and gas engines direct-connected or belted to electric generators, steam boilers equipped for burning both gas and coal, pumps, condensers, air compressors, steam traps, dynamometers and other auxiliary apparatus, affording facilities for experimental investigation as well as providing the means for furnishing any desired kind of

power. The power for the shops and laboratories is ordinarily obtained from a 50 H. P. Westinghouse two-cylinder gas engine ,direct-connected to a 37½ K. W. Westinghouse direct-current generator, from which it is distributed to motors or other apparatus, but this can be increased by operating independently, or in parallel, one or more additional machines driven by steam engines, or by a rotary converter connected to the city mains. Single and two-phase alternating current may be obtained from the city mains, and one, two and three-phase current may be developed by a double current dynamo driven as an inverse converter or as an alternating current dynamo. A variety of transformers, condensers, alternating current motors and a complete line of measuring instruments provide for experimental work with alternating currents.

The passenger locomotive donated by the Baltimore & Ohio Railroad Company furnishes a nucleus for instruction in railway engineering.

Transits, levels, compasses, etc., are provided for the use of students in surveying.

The latest trade literature, catalogues, and reports, of commercial developments in engineering are kept in classified files for students' reference. The University library has a thoroughly classified and indexed collection of the standard and latest books in engineering and the allied sciences, complete bound sets of the transactions of several scientific and engineering societies, and current issues and bound volumes of the principal scientific and technical periodicals.

The reference library of the Department of Mechanical Engineering has recently been enriched by the gift of the technical library belonging to the late Assistant Professor Randolph. These works were presented by his father, Mr. P. F. Randolph, of Salem, W. Va.

METHODS OF INSTRUCTION.

In the classroom, instruction is given by lectures, combined with text-book study and recitation. Engineering problems and subjects are assigned to be worked out in the library or drawing-room, in the field, the shop, or the laboratory. The several lines of work in any given study are coordinated, as far as possible, as noted in schedules of this College. In this way time is economized. The student concentrates his attention, focalizing it upon the particular question, problem, or project in hand. The classroom instruction is supplemented throughout by practical work in the field and drawing-room, shops and engineering laboratory. Visits of inspection to industrial establishments and power plants are made whenever it is possible to arrange for them.

The method of instruction in manual training and the mechanic arts is largely that of the shop exercise system, by which the student is familiarized with the fundamental operations of constructive mechanics. Later, such instruction is combined with the work of constructing machine elements, tools, and apparatus. By use of the shop-order system, attention is given to the economy of time and material.

In engineering drawing and designing, the work is carried along with the study of actual typical details of structural elements or exercises in the laboratories and mechanical shops. Frequent reference is made to models, to blue prints of engineering structures, and to existing work in the institution or elsewhere. An opportunity is also afforded for the necessary graphical treatment of engineering problems arising in lectures and the classroom instruction.

Lectures, field practice, mimeographed notes, collateral reading, conference work, and sketching, accompany all the practical lines of work.

In experimental engineering, the students are required to make scientific observations, keep records of tests, facilitate deductions therefrom by the use of calculating instruments, tabulate and plot results, and make reports upon the test in due form. Each member of the class is required to use and to become familiar with all the instruments and apparatus of any given course. The classes are divided into groups of three or four students and furnished with mimeographed notes and forms.

REQUIREMENTS FOR ADMISSION TO ENGINEERING COURSES.

The requirements for admission to the regular four year engineering courses are as follows:

English,	9 courses,
Modern Languages,	6 courses,
Algebra,	4 courses,
Plane and Solid Geometry,	3 courses,
Physics with laboratory,	2 courses,
Chemistry with laboratory,	3 courses,
History,	2 courses,
Free hand Drawing,	2 courses,
Total,	31 courses.

The following substitutions may be made:

1. Three courses in ancient language for three courses in modern language.

2. Any or all of the required college courses listed below may be offered for entrance instead of an equivalent number of preparatory courses in list 3. The preparatory courses for which substitution is

made must be taken as college work in the freshman year. The college courses which may be offered are:

French or German,	3 courses,
Trigonometry,	1 course,
Geology, 3 and 4,	2 courses,
Mechanic Arts,	2 courses,
Mechanical Drawing,	2 courses,

3. Any or all of the required preparatory courses listed below may be taken in the freshman year as college work, provided an equivalent number of college courses from list 2 above has been offered for entrance.

Elementary Physics,	2 courses,
Chemistry,	3 courses,
Free hand Drawing,	2 courses,
Modern Language,	3 courses.

4. Solid geometry may be taken as a college course when trigonometry has been offered for entrance.

ADMISSION TO SPECIAL COURSES.

Students under twenty-one years of age desiring to take special courses in the College of Engineering and the Mechanic Arts are required to present the same qualifications as candidates for one of the regular courses in this College. Students twenty-one years of age or over who are not candidates for an engineering degree, but who wish to pursue special studies along engineering lines, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies advantageously; but if they subsequently desire to become candidates for a degree, or to take a regular course in engineering, they must pass the required entrance examination for that year.

ADMISSION TO ADVANCED STANDING.

Students from other institutions will be admitted to advanced standing upon the same conditions under which students of this University are allowed to advance, namely:

A student to be registered as a Freshman must not be more than three courses behind his class; to be registered as a Sophomore, Junior or Senior, he must have completed the required work of his course, including entrance examinations up to the beginning of the preceding year; and, if a Sophomore, must not be more than three courses, or, if a Junior or Senior, not more than two courses behind his class.

No student can be admitted as a candidate for either of the baccalaureate degrees in Engineering after the beginning of the fourth year.

ENGINEERING COURSES OFFERED IN THIS COLLEGE.

The following regular courses are offered.

1. A four years undergraduate course leading to the degree of Bachelor of Science in Civil Engineering.

2. A four years undergraduate course leading to the degree of Bachelor of Science in Mechanical Engineering.

3. A four years undergraduate course in Electrical Engineering leading to the degree of Bachelor of Science in Mechanical Engineering.

4. A graduate course leading to the degree of Civil Engineer.

5. A graduate course leading to the degree of Mechanical Engineer.

The following special courses are offered:

1. Groups of elective courses for Bachelor of Arts students taking work in engineering subjects.

2. Special courses in civil, mechanical, and electrical engineering, for students who do not desire an engineering degree.

3. Special courses in manual training for teachers.

4. Special courses in the mechanic arts for artisans, mechanics, apprentices, stationary engineers, electricians, etc.

GENERAL DESCRIPTION OF ENGINEERING COURSES.

Undergraduate Courses in Engineering.

These are four year courses and lead respectively to the degrees of Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering. The detailed requirements for these degrees are given on the following pages. The work for a degree is nearly all prescribed but candidates for either degree have opportunity for a limited amount of specialization before graduation. For full particulars see statements of requirements for each degree. Candidates for other than the engineering degrees, and special students in any department of the University, are permitted to elect subjects in the College of Engineering, provided, in each case, they have had the subjects specified as prerequisites. Students who wish to take a general classical or scientific course before taking an engineering course are advised to carry their mathematics as far as called for by the engineering course, and to take some of their elective work in the College of Engineering. The engineering professors will advise them what is best for them to elect.

The purpose of the undergraduate engineering courses is to give the student a broad foundation for his professional career. Only a limited amount of specialization is considered wise. Study of English and other modern languages, the leading sciences, and especially

mathematics and mechanics, prepares the student for the technical subjects of the course. In the latter subjects, instruction in the theoretical principles involved is supplemented by field practice or work in the laboratory, shop, and drafting-room appropriate to the several subjects. As a result the young engineer is able to be of value to his employer at once and to advance rapidly in usefulness. The subjects studied, the consecutive nature of so much of the course, and the development of concentration and accuracy necessary to its successful completion, result in giving the student a fairly liberal education as well as preparation for his professional career.

Graduate Courses in Engineering.

These lead to the professional degrees of Civil Engineer and Mechanical Engineer, respectively. They consist of eight advanced engineering courses and a thesis, and require one year (three quarters) of resident study and work at the University.

A candidate for professional degrees is required to have completed the prescribed four years course of undergraduate study in that department of this College in which he proposes to take a degree, or to have completed such a course or its equivalent at some other institution of recognized standing conferring the same or an equivalent baccalaureate degree. In the latter case the diploma and other certificates of proficiency should be presented.

Special Engineering Courses.

Deserving young men who have not the time or are otherwise unable to take a full course, will be allowed to take special or partial courses, consisting of such studies as they are prepared to take up, provided that such partial courses shall have been approved by their class officers.

These consist of groups of electives for Bachelor of Arts students, and for special students taking work in engineering subjects. The latter are especially designed for surveyors, manual training teachers, and for others who are equipping themselves for some particular field of engineering, commercial, or industrial work.

These lines of work afford opportunity for specializing in the undergraduate departments of the Engineering College. Students who do not propose to take a full course leading to a degree in Engineering may, nevertheless, be quite fully prepared to take up certain lines of profitable study and work during their residence at the University.

THESES.

Every candidate for a baccalaureate or graduate degree in Engineering will be required to prepare a thesis on some subject relating to a special branch of engineering or other department of applied

science. The thesis must be either a design or a review of some machine, structure, or process, belonging to some department of scientific investigation. It must be fully elaborated and accompanied by the necessary working drawings or models required for the proper elucidation of the subject of the thesis.

With its accompanying drawings it will be presented first to the professor under whose guidance it has been prepared. It must be accepted by the head of that department in which the degree is to be conferred and approved by a special committee appointed for that purpose. A typewritten copy of the thesis, prepared according to official specifications for theses, must be placed in the University library before graduation.

ENGINEERING SOCIETY.

The Engineering Society is organized in connection with the Engineering departments. It is conducted by the students of these departments, and meets once in two weeks. Its object is the investigation and discussion of scientific subjects. All engineering students are requested to join this organization and perform such work as its rules require. Students taking either of the four-year courses leading to the baccalaureate degrees in Engineering are expected to engage actively, for three years, in the work of the Society.

UNDERGRADUATE COURSE IN CIVIL AND MINING ENGINEERING.

This is a four years course leading to the degree of Bachelor of Science in Civil Engineering. It has been planned with a view to laying a broad and substantial foundation for the general and technical knowledge needed by practitioners in civil engineering—so that graduates, guided by their theoretical education, and the practical training they may get during the course, may find profitable employment in the line of their profession and develop into useful investigators and scientific constructors.

The scope of the course may be ascertained by examining the statement of requirements for graduation, which follows:

Requirements for the degree of Bachelor of Science in Civil Engineering:

Department.	Subject.	Number.	Credit.
Mathematics:—	Trigonometry,	9	1 course,
	Higher Algebra,	8	1 course,
	Analytic Geometry,	11	1 course,
	Differential Calculus,	15	1 course,
	Integral Calculus,	16	1 course,

German or French,—	4, 5, 6	3 courses,
Analytical Chemistry,—	4, 5, 6	1 course,
Geology:—General Geology,	3	1 course,
Paleontology,	4	1 course,
Economic Geology,	5	1 course,
Mineralogy,	7	1 course,
Physics:—General Physics,	6, 7, 8	3 courses,
Dynamos and Motors,	17	1 course,
Mechanics and Applied Mathematics:—Statics,	2	1 course,
Strength of Materials,	4	1 course,
Kinetics,	3	1 course,
Power,	5, 6,	2 courses,
Mechanical Engineering:—Woodworking,	1	1 course,
Testing Laboratory,	70, 71, 72	1 course,
Civil Engineering:—Drawing,	1, 9, 10, 11	4 courses,
Descriptive Geometry,	2, 3	2 courses,
Land Surveying,	4	1 course,
Railroad Surveying,	5	1 course,
Topographical and Mine Surveying,	6	1 course,
Railroad Construction,	7	1 course,
Roads, Streets and Pavements,	8	1 course,
Hydraulics,	12	1 course,
Stereotomy,	13	1 course,
Stresses in Roofs and Bridges,	14, 15	2 courses,
Bridge Design,	16	1 course,
Municipal and San. Eng.,	17	1 course,
Railroad Economy,	18	1 course,
Masonry Construction,	19	1 course,
Gen. Engineering Construction,	20	1 course,
Thesis,	21	1 course,
Approved elective from any department,		3 courses,
Total,		48

Students who wish to specialize along the lines of chemistry, physics, mining engineering, hydraulics, structural design or electrical engineering, will be allowed to do so, under the following conditions, viz.: No substitution or election will be allowed before the beginning of the third year. Any student desiring so to specialize must prepare a list of the studies he wishes to substitute or elect, and a scheme of the work proposed, which must be approved by the head of the Department and the Committee on Classification and Grades, and filed with the Registrar.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B. S. C. E.

Each subject is followed by its department number, and, if a fractional course, by its credit value.

Hour.	Fall.	Winter.	Spring.
		First Year.	
8:30	German 4 See Note	German 5	German 6
9:30	Project. Draw. 1	Mech. Draw. 9	Land Surveying 4
10:30	Algebra 8	Trigonometry 9	Anal. Geom. 11
11:30	Geology 3	Geology 4	Geology 5
1:30	Woodwork'g 1, 1-3	Woodworking 1, 1-3	Woodworking 1, 1-3
		Second Year.	
8:30	Diff. Calculus 15	Integral Cal. 15	Mechanics 2
9:30	Physics 6	Physics 7	Physics 8
10:30	Mech. Draw. 10	Mech. Draw. 11	Top. & Min. Surv. 6
11:30	Descrip. Geom. 2	Descrip. Geom. 3	
1:30	Anal. Chem. 4, 1-3	Anal. Chem. 5, 1-3	Anal. Chem. 6, 1-3
			Field Prac. in Top. Surv.
		Third Year.	
8:30	R. R. Surveying 5	R. R. Construction 7	Mineralogy 7
9:30	Mechanics 3	Mechanics 4	
10:30	Stereotomy 13	Physics 17	Rds. & Pavem'ts 8
11:30			Masonry Const. 19
Sat.	Testing Lab. 70, 1-3	Testing Lab. 71, 1-3	Testing Lab. 72, 1-3
		Fourth Year.	
8:30	Power 5	Power 6	Hydraulics 12
9:30		Roofs & Bridges 15	Eng. Const. 20
10:30	R'fs & Brid's 14	Bridge Design 16	
11:30	Mun. & San. Eng. 17		R. R. Economy 18
1:30	Thesis throughout the year		

NOTE.—Students are expected to take at least three courses of French or of German as college work. The three taken may be any for which they are prepared. As the entrance requirements may be met in different ways also, it is not possible to make provision in the schedule for the foreign language work of every student. Those who enter with credit for three courses of German may take second year German as scheduled above. Others may take their language work as they can arrange it.

The schedule should be followed as closely as possible in order to avoid future conflicts in hours for required courses. Remember that three courses elective from any department must be inserted also.

UNDERGRADUATE COURSES IN MECHANICAL AND ELECTRICAL ENGINEERING.

These are four year courses in mechanical and electrical engineering and lead to the degree of Bachelor of Science in Mechanical Engineering. These courses seek to develop the principles and to prepare for intelligent work involving the design, selection, cost, con-

struction, installation, testing and management of power generators, prime movers, and machinery for manufacturing, transportation and power transmission; the planning, equipment, cost, construction and management of manufacturing plants, shops, factories, lighting, heating and ventilating.

Students pursuing this course may elect either the mechanical or the electrical alternative of the fourth year, receiving in either case the degree of Bachelor of Science in Mechanical Engineering. This provision has been made to meet the requirements of those who may wish to specialize in either the steam, the manufacturing, or the electrical branches of this profession.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING.

The degree of Bachelor of Science in Mechanical Engineering will be conferred upon any student who satisfies all entrance requirements and satisfactorily completes the following forty required college courses, and four courses selected from one of the elective groups given below:

Required Courses.

French or German,	3 courses,
Advanced Algebra,	1 course,
Trigonometry,	1 course,
Analytic Geometry,	1 course,
Calculus,	2 courses,
Geology,	2 courses,
Analytic Chemistry,	1 course,
Physics,	3 courses,
Descriptive Geometry,	1 course,
Land Surveying,	1 course,
Mechanics,	2 courses,
Strength of Materials,	1 course,
Mechanic Arts,	5 courses,
Mechanism and Machinery,	1 1-5 courses,
Machine Design,	3-5 course,
Power Plant Design,	3-5 course,
Drawing and Design,	5 courses,
Valves and Valve Gears,	3-5 course,
Dynamos and Motors,	1 3-5 courses,
Development and Utilization of Power,	2 courses,
Thermodynamics of Engineering,	1 course,
Heat Engines,	3-5 course,
Power Transmission,	3-5 course,
Experimental Engineering,	2 1-5 courses,
Thesis,	1 course,
Total,	40

Groups of Elective Courses.

Regular Course:

Steam Engine Design,	3-5 course,
Steam Boilers,	3-5 course,
Hydraulics,	4-5 course,
Electrical Machinery,	1 course,
Electric Lighting,	1 course,
	4 courses.

Electrical Group:

Electrical Machinery,	1 3-5 courses,
Electric Lighting,	1 course,
Electrical Railways,	4-5 course,
Electrical Distribution,	3-5 course,
Any approved Electrical course given by the Department of Physics,	1 or more courses.

Mechanical Group:

Steam Engine Design,	3-5 course,
Steam Boilers,	3-5 course,
Hydraulics,	1 course,
Materials of Engineering,	1 course,
Heating and Ventilating,	1 course,
Machinery and Mill Work,	1 course,
Machine Design,	1 course,
Any approved course given in the College of Engineering,	1 or more courses.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B. S. M. E.

First Year.

Hour.	Fall.	Winter.	Spring.
8:30	German 4	German 5	German 6
9:30			Land Surveying
10:30	Algebra 8	Trigonometry 9	Anal./Geom. 11
11:30	Geology 3	Geology 4	
1:30	Mech. Draw. 20 2-5 W. & F.	Mech. Drawing 21, 2-5	Mech. Drawing,22, 2-5
1:30	Woodwk'g 1, 3-5 T. and Th. and 8:00 S.	Pattern-making 3, 3-5	Foundry 7, 3-5

Second Year.

8:30	Differen'l Calc'us	Integral Calculus	Mechanics 2
9:30	Physics 6	Physics 7	Physics 8
10:30		Mechanism 24, 3-5 M., W. and F.	Mechanism 25, 3-5 M., W. and F.
11:30	Descrip've Geom.		
1:30	Analyt'l Chem. 4 T. and Th.	Anal. Chemistry 5	Anal. Chem. 6
1:30	Mec. Draw. 23, 1-3 F. (Elective)	Mech. Drawing 26 W. and F. 2-5	Mec. Drawing 27 W. and F. 2-5
1:30	Forging 5, 2-5 M. and 8:00, S.	Tin & Pipe W'k 9, 2-5	Machine Work 10 2-5

Third Year.

8:30	Power 5	Power 6	Thermodynamics 40
9:30	Mechanics 3	Mechanics 4	Mach. Design 31, 3-5 M., W. and F.
10:30	Val's & Valve Gr's 28, 3-5 M., W. and F.	Dyn. & Motors 17 3-5, M., W. and F.	Dyn. & Motors 18
11:30			
1:30	Mach. Work 11 2-5 M. and F.	Machine Work 12 2-5	Machine Work 13 2-5
1:30	Mach. Draw. 29 Tu. and Th. 2-5	Machine Draw'g 30 2-5	Machine Draw'g 32 2-5
8:00	Mech. Lab. 70, S. 1-3	Test'g Mater. 72 1-3	Power Measure. 71 1-3

Fourth Year.

8:30	Heat Engines 41 3-5 M., W. and F.	Pow. Plant Des'n 43 3-5 M., W. and F.	Hydraulics 12 (6), 4-5
9:30	Steam Eng. Des. 34, 3-5 M., W. & F.	Steam Boilers 42, 3-5 M., W. and F.	Power Transm. 59, 3-5
10:30	I. Elect. Mach. 51	Elect. Lighting 53	
1:30	Draw. & Des'n 35 Tu, Th. and F. 3-5	Drawing & Des'n 36 3-5	Draw. and Design 37 3-5
1:30	Mach. Const. 14 2-5 M. and W.	Mach. Const. 15 2-5	Thesis
8:00	Eng'g Lab. 73, Tu., Th. or S. 2-5	Eng'g Lab. 74, 2-5	Eng'g Lab. 75, 2-5

Fourth Year.—(Electrical Course.)

8:30	Heat Eng's 41, 3-5 M., W. and F.	Power Plant Des'n 43, 3-5, M., W. and F.	
9:30	Elect. Dist. 52, 3-5, M., W. and F.	Elect. Mach. 55, 3-5 M., W. and F.	Power Trans. 59, 3-5 M., W. and F.
10:30	Elect. Mach. 51	Elect. Lighting 53	Elect. Railroads 54, 4-5
1:30	Mach. Const. 14, 2-5, M. and W.	Mach. Const. 15. 2-5 M. and W.	
1:30	Des'n & Draw. 56 3-5 Tu., Th. and F.	Des'n & Draw. 57, 3-5 Tu., Th. and F.	Design & Draw. 58, 3-5 Tu., Th. and F.
8:00	Eng. Lab. 73, 2-5 Tu., Th. or S.	Eng'g Lab. 74, 2-5	Eng'g Lab. 75, 2-5

Fourth Year.—(Mechanical Alternative.)

Candidates for the degree of B. S. M. E. may select their elective studies from the mechanical group of electives, but such elective courses must be taken at the time for which they are announced in the catalogue. The required courses will be taken as scheduled above.

MANUAL TRAINING COURSES.

The first group consists of Courses 1, 2, 3, and 5, consisting of shop practice in wood and metal working. The second group consists of mechanical drawing, Courses 20, 21, 22, and shop practice in wood and metal working, Courses 1, 2, 3, 5, 7, 8, 9, and 10. These courses aim to present the simple elements of some of the constructive arts which admit of being developed into a logical series of exercises. Their merit is chiefly educational rather than as possessing any in-

trinsic value in relation to the several branches of handicraft work from which they are taken. The primary object is the training of the eye to see the form of objects, and of the hand to produce such forms in the materials most commonly used in constructive work. At the same time the student is acquainted with the use of the fundamental tools and with the accuracy called for in the production of elements of construction and of simple combinations of the same in fitting parts of the work together. There is sufficient instruction in handicraft work and practice to form a proper foundation for the more advanced work with machine tools in mechanical construction, and these courses are, therefore, required of all students taking the full course in Mechanical Engineering.

Students who wish to become more proficient in the use of tools or who are preparing themselves for positions as foremen in industrial establishments, may take additional work in the shop in which they wish to specialize. Instruction will be given in the maintenance and repair of machinery, and opportunity will be afforded for the construction of new machines and apparatus for the University, as well as the working up in the shops of original designs which have been approved by the head of the Department. All students in Mechanical Engineering are recommended to take advantage of this provision and devote as much time as possible to shop and drawing-room practice.

DEPARTMENTS OF INSTRUCTION

Each of the courses of instruction offered by the Engineering department is known as a full course unless otherwise stated; that is, a course of five class exercises a week for one quarter, or their equivalent in laboratory or other practical work.

The following branches of applied science and engineering are represented in the courses offered by the Engineering departments:

Civil Engineering
Designing
Drawing
Electrical Engineering
Experimental Engineering
Hydraulic Engineering
Mechanics
Mechanic Arts
Applied Mathematics
Mechanical Engineering
Metallurgy
Mining Engineering
Municipal Engineering
Railroad Engineering
Sanitary Engineering
Steam Engineering
Structural Engineering
Surveying

CIVIL AND MINING ENGINEERING.

Professor W. H. Boughton and Professor Russell L. Morris.

1. **Projection Drawing.** Orthographic projections in one quadrant; elementary problems in shades and shadows; isometric and oblique projections. Lectures and recitations. Drawing-room work. Warren's "Industrial Drawing," Part III, and Faunce's "Descriptive Geometry." Fall, 9:30; Professor Morris, 30 M. H.

2. **Descriptive Geometry.** Orthographic projections in the four quadrants; problems of the point, line and plane; tangencies and the development of single-curved surfaces. Warren's text-books Fall, 11:30; Professor Morris, 30 M. H.

3. **Descriptive Geometry.** Single-curved, double-curved and warped surfaces; intersections, tangencies and developments; shades, shadows and perspective. Lectures and recitations. Warren's text-books. Winter, 11:30; Professor Morris, 30 M. H.

4. **Land Surveying.** Theory and practice of land surveying; magnetic variations; calculating the content; retracing old lines; division of lands; establishment of meridians; care and use of instruments;

mapping the survey; field practice. Lectures and recitations. Gillespie's "Surveying." Spring, 9:30; Professor Morris, 30 M. H.

5. Railroad Surveying.—Theory and practice of railroad surveying. Lectures, recitations, and field work.

Fall, 8:30; Professor Morris, 24 M. H.

6. Topographical and Mine Surveying. Theory and practice of topographic, hydrographic, and barometric surveying. Theory and practice of underground surveying. Lectures, recitations, and field practice. Prerequisite Course 4.

Spring, 10:30; Professor Boughton, 26 M. H.

7. Railroad Construction and Maintenance. Tunnels, trestles, track work, earth work, signalling, graduation, masonry, etc. Tratman's "Track and Trackwork." Winter, 8:30; Professor Morris, 24 M. H.

8. Roads and Pavements. Location, construction, and maintenance; study and comparison of the various types of roads; road-making material. Lectures. Spring, 10:30; Professor Morris, 24 M. H.

9. Drawing. Continuation of Course 1; projections, developments, and intersections; lettering. Thorne's "Junior and Intermediate Courses in Drawing." Winter, 9:30; Professor Morris, 30 M. H.

10. Drawing. Conventional methods in detail drawing and map drawing; special attention to execution and to practical lettering of working drawings. Hours to be arranged; Professor Boughton, 26 M. H.

11. Drawing. Continuation of course 10; examples taken from actual engineering constructions; elementary problems in design of structures. Hours to be arranged; Professor Boughton, 26 M. H.

12. Hydraulics. Theoretic pressure and energy of water; flow of water through orifices, tubes and over weirs; flow in conduits, pipes, canals, brooks, and rivers; current meters, water motors, water wheels, etc. Lectures and recitations.

Spring, 8:30; Professor Boughton, 26 M. H.

12a. Hydraulic Measurements. Field and office work on selected hydraulic problems,—as the flow of water over dams, gauging of streams, etc. One-half course. Elective course not given regularly.

Hours to be arranged; Professor Boughton, 26 M. H.

12b. Hydraulics. Part of course 12; arranged especially for mechanical engineering students. Four-fifths course.

Spring, 8:30; Professor Boughton, 26 M. H.

13. Stereotomy. Stone-cutting, plain and decorative. Recitation and laboratory. Warren's "Stone Cutting."

Fall, 10:30; Professor Morris, 32 M. H.

14. Stresses in Roofs and Bridges. Determination of stresses by graphical and analytical methods. Lectures and recitations. Prerequisite, Strength of Materials. Fall, 10:30; Professor Boughton, 26 M. H.

15. Stresses in Bridges and Arches. Continuation of Course 14. Lectures and recitations. Winter 9:30; Professor Boughton, 26 M. H.

16. Bridge Design. Detailed designs of bridges and other structures of wood and steel. Must be preceded or accompanied by course 15. Winter, 10:30; Professor Boughton, 26 M. H.

16a. Bridge Design. Continuation of Course 16. Elective course not given regularly.

Hours to be arranged; Professor Boughton, 26 M. H.

17. Municipal and Sanitary Engineering. Water supply for municipalities, sewerage systems, sewerage disposal, etc. Lectures and recitations. Fall, 11:30; Professor Boughton, 26 M. H.

18. Economic Railroad Location. General theory of railroad location; effects of grades, curvature and distance on operating expense and revenue; railroad finance and management.

Spring, 11:30; Professor Morris, 24 M. H.

19. Masonry Construction. As presented in Baker's "Masonry Construction." Spring, 11:30; Professor Boughton, 26 M. H.

20. General Engineering Construction. Supplementary to other courses of this department, especially numbers 7, 16, 19 and these are prerequisites Spring, 9:30; Professor Boughton, 26 M. H.

21. Thesis. See "General Description of Engineering Courses" for thesis requirements.

22. Geodesy. Precise and geodetic surveying; reduction of observations by the method of least squares; field exercises in determining azimuth, latitude, and time. Elective course not given regularly. Given in winter of 1905-6.

Hours to be arranged; Professor Boughton, 26 M. H.

Note. In the several surveying courses, whether so stated in the announcement or not, there may be field practice on Friday afternoons, or at other times different from the recitation hour, as the instructor may arrange. The student should keep this in mind when selecting courses for any quarter.

Courses for Graduates.

The general requirements of candidates for advanced Engineering degrees are stated on a previous page.

Any candidate for the degree of C. E. must take the principal part of his graduate work, including the thesis, in this department, along some special line selected by himself and approved by the head of the department. Work taken in other departments must be with the approval of the head of this department.

MECHANICAL ENGINEERING AND THE MECHANIC ARTS.

Professor Jones, Assistant Professor Church, Mr. West, Mr. Cather and Mr. Grumbein.

Courses in the Mechanic Arts.

1. Woodworking. Includes instruction in carpentry, joinery, and other bench work; exercises with the fundamental edge tools in soft and hard woods, and in matching, molding, joining, and making typical framed work; woodturning, comprising the fundamental geometric forms in soft and hard woods; fitting forms of reversed curves; face plate work, chucking, boring, finishing, and polishing. Three-fifths course or 9 actual hours per week.

1st section, Fall, Winter or Spring, Monday, Wednesday, and Friday, 1:30.

2nd section; Fall, Winter or Spring, Tuesday and Thursday, 1:30 and Saturday, 8:00; Mr. Grumbein, 21 M. H.

2. Woodworking. Advanced work for special students. In this course the student is permitted to specialize along the lines of his choice. The amount of credit to be given depends upon the amount of time spent in the shop and the progress made by the student.

Hours to be arranged. Mr. Grumbein, 21 M. H.

3. Pattern-Making. Applies the foregoing instruction in its relation to patterns for machine construction, considers the types of patterns and usual allowances for draft, shrinkage and finish, with exercises in making patterns of machine elements and other work to be executed in the machine shop. Three-fifths course, or 9 hours per week.

1st section; Fall, Winter, or Spring, Monday, Wednesday and Friday, 1:30;

2nd section; Fall, Winter, or Spring, Tuesday and Thursday, 1:30 and Saturday, 8:00; Mr. Grumbein, 21 M. H.

4. Pattern-Making. A continuation of Course 3 for special students. Credit for this course is given on the basis of the time spent in the shop and the progress of the student.

Hours to be arranged. Mr. Grumbein, 21 M. H.

5. Forging. Exercises in drawing out and sizing, forming, welding and fitting iron; steel forging, tempering, annealing; making typical tools to be used later in the machine shop; manner of working forges; determining quality of iron and steel and strength of the students' welded joints. 4 hours per week.

Two-fifths course, or 6 hours per week, Sophomores; Fall, Monday 1:30 and Saturday, 8:00.

Other sections at times to suit convenience of students.

Mr. West, 7 M. H.

6. Forging. A continuation of Course 5 for special students. Credit is given on the basis of time spent in the shop and the progress of the student. Hours to be arranged. Mr. West, 7 M. H.

7. Foundry. Molding and casting in connection with pattern-making; selection, preparation and use of molding, facing and parting sands; use of typical molder's tools and appliances; making castings from exercise patterns and from those for machine work.

Three-fifths course. Spring, Monday, Wednesday, and Friday, 1:30; Mr. West, 8 M. H.

8. Foundry Practice. A continuation of course 7 for special students. Hours to be arranged. Mr. West, 8 M. H.

9. Tin-Smithing and Pipe-Fitting. Brazing, tinning, forging and use of coppers; seamless and solder-jointed work in tin and sheet iron; laying-out, cutting and forming sheet-metal; solder joints for electrical fitting; bending and coiling pipe; making joints and use of packing; drilling and tapping for pipe and bolt holes in boiler plate; soft and hard patches; tank and boiler riveting, caulking, and tube expanding.

Two-fifths course, or 6 hours per week.

Winter, Monday, 1:30, and Saturday, 8; Mr. West, 7 M. H.

10. Machine Work. Tool smithing, iron work at the bench, chipping, filing, fitting, scraping, polishing; key-seating; formation of straight edges, surface-plate. Handwork with machine tools, drilling, tapping.

Two-fifths course, or 6 hours per week.

Spring, Monday, 1:30, and Saturday, 8:00; Mr. Cather, 11 M. H.

11, 12, 13. Machine Tool Work. A continuation of Course 10. Mechanical engineering; machine tool work with drill-press, lathe, shaper, planer, emery grinder, and milling machine; production of typical details of machine tools and other workshop appliances.

Each 6 hours per week. Two-fifths course.

Fall, Winter, Spring, Tuesday and Thursday, 1:30; Mr. Cather, 11, M. H.

14, 15, 16. Machine Construction. Reproduction of typical details of steam-engine and other motive-power machinery; work from original designs; manufacture of special apparatus for shop and laboratory use; practice in building, assembling and erecting workshop and engineering appliances, motive-power machinery and accessories, and in attendance on the same. Each 6 hours per week. Two-fifths course.

Fall, Winter, Spring, Tuesday, Thursday, 1:30; Mr. Cather, 11 M. H.

Courses in Mechanical Drawing and Machine Design.

20, 21, 22. Mechanical Drawing. Plain lettering, care and use of drawing instruments, selected geometric constructions, line exercises, finished drawings. Isometric, cabinet, and orthographic projection and perspective. Working drawings from models and blue prints, tracing

and blue printing. Mimeographed notes, blue prints. Tracy's "Mechanical Drawing" and Reinhardt's "Lettering."

Each 6 hours per week, or two-fifths course. Fall, Winter and Spring, Monday, Wednesday, 1:30; Professor Church, 25 M. H.

23. Machine Drawing. Working drawings of machine parts from sketches and models. Elective for Sophomores. Prerequisite, Course 21. One-third course. Fall, Friday, 1:30; Prof. Church, 25 M. H.

24 and 25. Mechanism and Machinery. Analysis and classification of mechanisms, diagrams of relative velocities of machine parts; principles of transmission and change of motion by linkages, rolling contact, tooth gearing, couplings, belting, cams, parallel and straight line motions; classification and analysis of machinery with special attention to workshop appliances, machine tools, and machinery of transmission. Lectures, recitations, and drawings, Courses 26 and 27 Barr's "Kinematics of Machinery." Each three-fifths course.

Winter and Spring, Monday, Wednesday, Friday, 11:30; Professor Church, 14 M. H.

26, 27. Mechanical Drawing. Drawings of machine parts from sketches, details of mechanical movements and drawings of machine parts worked out in Courses 24 and 25 respectively. Lectures and drafting. Each 6 hours per week, or two-fifths course. Winter and Spring, Wednesday, and Friday, 1:30; Professor Church. 25 M. H.

28. Valves, Valve Gears and Governors. Comparison of valve diagrams; analysis and design of valves, valve gears and governors. Prerequisite, Course 27. Lectures, recitations, and drawing, Course 29. Three-fifths course.

Fall, Monday, Wednesday, Friday, 10:30; Professor Church; 14 M. H.

29. Machine Drawing. Drawing room practice accompanying course 28. Two-fifths course.

Fall, Tuesday and Thursday, 1:30; Professor Church, 25 M. H.

30. Machine Drawing. Conventional methods, detail and assembled drawings, tracing and blue printing. Prerequisite, Course 22. Two-fifths course.

Winter, Tuesday and Thursday, 1:30; Professor Church, 25 M. H.

31. Machine Design. Elements in machine design, conventional and rational; adaptation of commercial sizes; proportioning fastenings, flanges, bearings, rotating pieces, connecting links, and machine supports; mechanics of machinery; influence of material and treatment on design. Lectures, recitations, and drawing, Course 32. Unwin's "Machine Design." F. R. Jones' "Machine Design." Three-fifths course.

Spring, Monday, Wednesday, Friday, 9:30; Professor Church, 14 M. H.

32. Machine Drawing. Drawing room practice accompanying course 31. Two-fifths course.

Spring, Tuesday and Thursday, 1:30; Professor Church, 25 M. H.

33. Machine Design. Continuation of Course 31. Lectures, recitations and drawing. Fall, 11:30; Professor Church, 14 M. H.

34. Steam Engine Design. Comparison of rational and empirical formulae; complete design of simple engine. Supplemented by Course 35. Lectures and recitations. Printed notes, blue prints, and drawings of best types of modern engines. Three-fifths course.

Fall, Monday, Wednesday, Friday, 9:30; Professor Church, 16 M. H.

35. Drawing and Designing. Drawing room practice accompanying Course 34; as far as possible complete drawings of an engine are made from calculations and designs developed in Course 34. Students taking the electrical alternative are allowed to specialize. Three-fifths course.

Fall, Tuesday, Thursday, Friday, 1:30; Professor Church, 25 M. H.

36. Drawing and Designing. Continuation of Course 27 and drawing room and office work accompanying Course 43, Mechanical Engineering. References made chiefly to blue prints and mechanical drawings of actual power and manufacturing plants. Two-fifths course.

Winter, Tuesday, Thursday, Friday, 1:30; Professor Church, 25 M. H.

37. Drawing and Designing. Continuation of Course 36 and specialized engineering drawing. Prerequisite, Course 36. Three-fifths course.

Spring, Tuesday, Thursday, Friday, 1:30; Professor Church, 25 M. H.

Steam Engineering, Manufacturing, Etc.

40. Thermodynamics of Engineering. Mechanical theory of heat, thermodynamics of gases and vapors, with special application to steam and other heat engines, air, and refrigeration. Prerequisites, Courses 5 and 6, Mechanics. Lectures and recitations. Peabody's "Thermodynamics of the Steam Engine."

Spring, 8:30; Professor Jones, 16 M. H.

41. Heat Engines and Motors. Expansive working of steam and gas, principles of design, construction and operation of steam engines, air compressors, gas engines, and refrigerating machines. Prerequisite Course 40. Lectures and recitations supplemented by Course 73. Three-fifths course.

Fall, Monday, Wednesday, and Friday, 8:30 Professor Jones, 16 M. H.

42. Steam Boilers. Heating value of fuels, combustion, economical production of steam; application of theory and practice in the design of steam boilers, chimneys, and accessories; steam piping and distribution. Prerequisite, Course 31, Lectures. Three-fifths course.

Winter, Monday, Wednesday, Friday, 9:30; Professor Church, 14 M. H.

43. Power plant Design. Embodies the details of the earlier courses of instruction in Prime Movers and motive-power machinery in respect to the design of steam and electric power and hydraulic plants

for power transmission and manufacturing purposes; location of the plant; selection, arrangement, subdivision into units and installation; economics, organization and management of power and manufacturing plants; engineering specifications. Lectures and accompanying Course 36. Three-fifths course.

Winter, 8:30, Professor Jones, 16 M. H.

44. Power Plant Design. A continuation of Course 43 for graduates and advanced students. Lectures, assigned reading and designing.

Hours to be arranged. Professor Jones, 16 M. H.

45. Machinery and Mill Work. Construction of shops and manufacturing plants, arrangement of machines, hoisting and conveying machinery. Lectures, recitations, and designing. Elective for seniors.

Winter, 10:30; Professor Church, 14 M. H.

46. Heating and Ventilating. Principles,comparative merits and design of various systems of ventilating, heating by hot air, hot water, steam, electricity. A careful study of the systems in the different University buildings. Prerequisite, Course 4, Physics. Lectures and recitations. Carpenter's "Heating and Ventilating Buildings." Elective

Hours to be arranged. Professor Jones, 16 M. H.

47. Materials of Engineering. A study of the various materials used in engineering, the source, manufacture, qualities, cost, etc. Prerequisite, Mechanics, 4

Hours to be arranged. Professor Jones, 16 M. H.

Courses in Electrical Engineering.

For elementary courses in the theory of electricity, see the announcements under the department of Physics.

50. Applied Electricity. An elementary course for special students. Management of dynamos and motors, wiring calculations, house wiring and line construction. This course will be given upon the application of four or more students.

Spring, 11:30; Professor Jones, 16 M. H.

51. Electrical Machinery. Principles of designs, construction and operation of dynamos, motors and transformers. Prerequisite, Course 17, Physics, and to accompany Course 60.

Fall, 10:30; Professor Jones, 16 M. H.

52. Electrical Distribution. Distribution of electrical energy for light and power by direct and alternating currents. Prerequisite, Course 17, Physics. Three-fifths course.

Fall, 9:30; Professor Jones, 16 M. H.

53. Electric Lighting. Principles of design, construction, installation and operation of electric-lighting systems; electrical distribution for lighting circuits; manufacture, care, and use of arc and incandes-

cent lamps. Prerequisite, Course 17, Physics, and to accompany Course 61, Mechanical Engineering. Crocker's "Electric Lighting."

Winter, 10:30; Professor Jones, 16 M. H.

54. Electric Railroads. Principles of design, construction, installation, operation and management of electric railway machinery and electric railroad systems, and distribution for railway circuits. Prerequisite, Course 51, and to accompany Course 62. Four-fifths course.

Spring, Monday, Tuesday, Wednesday and Friday, 10:30;

Professor Jones, 16 M. H.

55. Electrical Machinery. A continuation of Course 51 for students taking the Electrical Alternative.

Winter, 9:30; Professor Jones, 16 M. H.

56, 57 and 58. Designing and Drawing. Designing and drawing electromagnets, dynamos, motors, switch-boards and central stations. Each three-fifths course or 9 hours per week.

Fall, Winter, and Spring, Monday, Wednesday, Friday, 1:30;

Professors Jones and Church, 25 M. H.

59. Electric Power Transmission. Transmission of power by electricity from generating station operated by steam and water power for utilization in lighting, mining, traction and manufacturing. Prerequisite, Course 51. Three-fifths course.

Spring, Monday, Wednesday, Friday, 9:30; Professor Jones, 16 M. H.

60, 61, 62. Electrical Engineering Laboratory. Practical management of electrical machinery; coupling generators; calibration of electrical engineering measuring instruments; switch-board tests; determination of efficiencies and characteristics in laboratory and commercial tests of dynamos and motors; comparison of methods; investigation of losses; location of faults; testing arc and incandescent lighting circuit. Prerequisite, Course 17, Physics. To accompany Courses 51, 53, and 54 and time to be assigned from same.

Fall, Winter, Spring, Tuesday, Thursday or Saturday, 8:00;

Professor Jones, 4 M. H.

Courses in Experimental Engineering.

70. Mechanical Laboratory. The comparison of experimental results and determination of physical laws from observation; theory, calibration and use of slide rule, planimeters, steam engine indicators, steam gauges, and thermometers; calorimeter tests for heating value of coal and natural gas; testing lubricating oils.. Prerequisite, or accompanying Course 2, Mechanics. Carpenter's "Experimental Engineering." One-third course.

Fall, Saturday, 8:00; or Friday 1:30; Professor Jones, 10 M. H.

71. Power Measurements. Efficiency tests of simple engines, pumps, dynamos, motors, and machinery of power transmission; meas-

urements of power by Prony brake, rope brake, Alden absorption dynamometer, transmitting dynamometer; steam engine indicator practice and simple valve setting; determination of the quality of steam. Prerequisite or accompanying Course 12, Mechanics. One-third course.

Spring, Saturday, 8:00; or Friday, 1:30; Professor Jones, 10 M. H.

72. Testing Materials of Engineering. Tensile, compressive, and transverse tests of wrought iron, cast iron, steel and timber; transverse, compressive and absorption tests of stone and brick; tensile, compressive, specific gravity and absorption tests of cement; also tests for fineness, time of setting and constancy of volume. Prerequisite, or accompanying Course 4, Mechanics. One-third course.

Winter, Saturday, 8:00 or Friday 1:30; Professor Jones, 10 M. H.

73. Mechanical Engineering Laboratory. Experimental work in thermodynamics, tests of thermometers, indicators, injectors, calorimeters, steam and oil separators, non-conducting coverings; flow and quality of steam, coal calorimetry, analysis of chimney gases, practice in valve setting, behavior of steam in the cylinder; or such other work as may be assigned. Prerequisite, Course 40, Mechanical Engineering. Two-fifths course.

Fall, 1st section 8.00, Saturday; 2nd section 8:30, Tuesday; 3rd section 8:30, Thursday; other sections as assigned.

Professor Jones, 10 M. H.

74. Mechanical Engineering Laboratory. Economy tests of simple and multiple expansion of the steam engines, condensing and non-condensing; steam boilers, fired with gas and coal; steam heating apparatus; duty trials of steam pumps; efficiency tests of hydraulic motors, fans, blowers, etc.; application of Hirn's analysis to the steam engine; flow of water through pipes and orifices, calibration of water meters. Two-fifths course.

Winter, 1st section 8:00 Saturday; 2nd section 8:30 Tuesday; 3rd section 8:30 Thursday; other sections as assigned.

Professor Jones, 10 M. H.

75. Mechanical Engineering Laboratory. Combined tests of performances of boilers, engines and electrical and other power transmission machinery; testing of plants away from the University when the opportunity affords; special research work. Prerequisite 74, Mechanical Engineering. Two-fifths course.

Spring, hours to be arranged. Professor Jones, 10 M. H.

76. Engineering Laboratory. Commercial tests and research work. For graduates and advanced students. Prerequisite, Course 75. Credit will be given on the basis of the time spent in the laboratory and the progress of the student.

Hours to be arranged. Professor Jones, 10 M. H.

For laboratory courses in electrical engineering see courses 60, 61 and 62.

MECHANICS AND APPLIED MATHEMATICS.

Professor Emory.

1. Elementary Mechanics. The principles of rational mechanics treated without the calculus and from the physical standpoint. For students pursuing certificate Electrical course and those preparing for the work of the artisan, foreman, or draughtsman. Prerequisite, Trigonometry. 20 M. H.

2. Statics. A study of the composition of forces, polygon of forces, magnitude and resolution, equilibrium of concurring forces, resultants of parallel forces both by analytical and graphical methods, moments of forces, couples, equilibrium of non-concurrent forces, center of gravity and moment of inertia by anayltical and graphical methods, the stability of structures, and the stresses in framed and jointed constructions. Prerequisite, the calculus. Spring, 8:30; 20 M. H.

3. Kinetics. Laws of motion, motion in vacuo and in resisting medium, central forces, centrifugal force, the pendulum and governor, impulse work, energy, power, modulous of machines, kinetic energy of revolving masses, work of variable forces, Simpson's rule, duty of engines, impressive forces, motion of rigid bodies, fly-wheels, conservation and dissipation of energy. Prerequisite, Course 2. Fall, 9:30; 20 M. H.

4. Applied Mechanics. Strength of Materials. Resistance and elasticity of materials, pipes, cylinders and riveted joints, cantilever and simple beams, tension and compression, resilience, shear and torsion, strength of timbers, iron, steel, stone, cement, elastic limits of materials, factors of safety. Design of simple structures. Prerequisite, Course 3. Winter, 9:30; 20 M. H.

5. Development and Utilization of Power. Lecture course. A study of the history of the development of the modern pumping engine, railroad locomotive, naval and stationary steam engine, with illustrations and descriptive study of the accessories of such generators. Course arranged for general arts students as well as for engineering students. Required of engineering students; elective for sophomores or seniors. Fall, 8:30; 20 M. H.

6. Development and Utilization of Power. Lecture course. History of the development and present practice in the use of pumps, heaters, condensers, economizers, purifiers, pipe connections, chimneys, boilers, and other accessories for steam plants, hot air, gas engines, oil engines, wind and hydraulic engines, binary vapor engines, air compressors, and other sources of power. Prerequisite, Course 5. Winter, 8:30; 20 M. H.

7. Development and Utilization of Power. Text-book course. Mathematical study of power, the Clausius, Rankine and physical methods of anaylsis of power development, measurement of power,

thermodynamics of perfect gases and of vapors, of gas engine and steam cycles, computation of the size and efficiencies of generators, and a complete calculation for power plant to perform some special work, such as water supply, coal handling or other mining operation, etc. Required of engineers. Prerequisite, Courses 4 and 6.

Spring, 9:30; 20 M. H.

8. Development and Utilization of Power. Advanced course in power, study of the economical development of power and the designing of power generators from standpoint of the owner. For graduates. 20 M. H.

9. Consulting Engineering and Industrial Plants. Engineering problems ensemble and in detail, estimates for installation and economical management and the study of industrial plants from the standpoint of the manufacturer. Economics of manufacturing, systems of labor and costs. For graduates. 20 M. H.

10. Materials of Engineering and Construction. Seminary course in the study of the various materials used in engineering, architecture, and manufactures, their occurrence, modes of treatment, uses, costs, efficiency, etc. For engineers and others having preparation, 20 M. H.

11. Building Superintendence and Architectural Engineering. Construction and inspection of foundations, stone, cement, brick work, iron and steel work, carpentry and mill work, roof trusses, roof coverings, cage construction and veneer work for high buildings, preservation of iron work, fire proofing, plastering, inspection of gas fitting, electric wiring, systems of heating and ventilating, etc. For seniors and graduates. 20 M. H.

12. Applied Mathematics. A special course for those making mathematics their major and those who desire a study of its applications to mathematical instruments and appliances and to the methods of analysis. An application of the calculus to mechanics and physics and to exact measurements. Prerequisite, integral calculus. One-half course, may accompany course 17. 20 M. H.

13. Mathematical Theory of Heat or Theoretical Thermodynamics. Study of heat following the methods and theories of Clausius and Rankine. Half course. Prerequisite, Calculus. 20 M. H.

14. Mathematical Theory of Electricity. Mathematical theory of the alternating current, direct current, condensers, transformers, motors, etc. For seniors and graduates. Prerequisite, calculus and physics. 20 M. H.

15. Hydraulics. Static Pressures, centers of pressure, flow of water through orifices, pipes, tubes, air veins, dams and in canals, rivers, etc., current meters, energy of water, water wheels and motors, hydraulic power plants, hydraulic machinery, hydraulic shop and engineering appliances. 20 M. H.

16. Water Power Engineering. Development of natural water powers, storage dams, power houses, transmission of generated power and utilization. Seniors and graduates. 20 M. H.

17. Method of Least Squares. Errors of observations; principles of probability, weights of observations, principle of least squares, probable errors of observations, correction of observations, normal equations, empirical formulae. Seniors and graduates. Prerequisites, physics and calculus. 20 M. H.

18. Differential Equations. Study of the differential equation of the first order and first degree, first order and higher degrees, including special applications to mechanical and physical problems. Prerequisite, calculus. Half course. 20 M. H.

19. Differential Equations. A more extended course than Course 18 of the differential equation, with more extended applications. Prerequisite, calculus. 20 M. H.

20. Higher Mathematics. A course in general higher mathematics, including solution of equations, hyperbolic functions, harmonic functions, etc. Prerequisites, calculus and differential equations. For graduates and seniors having preparation. 20 M. H.

Courses above for which no time is assigned may be taken at any hour and term which will not conflict with the required courses in Engineering.

THE COLLEGE OF AGRICULTURE

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.
THOMAS CLARK ATKESON, Ph.D., Dean and Professor of Agriculture.
BERT HOLMES HITE, M.S., Professor of Agricultural Chemistry.
THOMAS EDWARD HODGES, A.M., Professor of Physics.
CLEMENT ROSS JONES, M.M.E., Professor of Mechanical Engineering.
JOHN LEWIS SHELDON, Ph.D., Professor of Bacteriology.
FREDERICK PHILIP RUHL, D.V.S., Instructor in Veterinary Science.
WILLIAM EARL RUMSEY, B.S.Agr., Instructor in Economic Entomology.
THOMAS CARSKADON JOHNSON, A.M., Instructor in Horticulture and Botany.
WALTON KIRK BRAINERD, B.S.Agr., Instructor in Dairying.
HORACE ATWOOD, M.S.Agr., Instructor in Poultry Industry.
A. LEE POST, A.B., Assistant Bacteriologist.
RUFUS WEST, Assistant in Metal Working and Stationary Engineer.
THOMAS HOWARD CATHER, Foreman of Machine Shop.
JOHN B. GRUMBEIN, Foreman of Wood Shop.

THE COLLEGE OF AGRICULTURE.

Aims and Scope.

The movement for agricultural education is one of the most prominent and most important educational movements of to-day. It is now realized that the farmer must be specially educated for his business as well as the engineer or the doctor or the teacher for his. Farming, in its various branches, will not be a success until this principle is put into practice..

This College offers to students an education designed to fit them for the business and practice of agriculture, while opportunity, and means of culture are also afforded; an education which is, therefore, partly technical and partly cultural. Its object is the training of students to be not only progressive farmers, but good citizens and suc-

cessful business men as well. In other words, it seeks to provide an education suitable to the needs of rural people.

The technical portion of the courses offered in this College constitutes about one-half of the entire work of the students. In studying these technical subjects, the aim is not so much to teach rules of practice, as to make plain the principles of agricultural science.

Students who complete their course in this College are expected to be thoroughly up to date and enthusiastic followers of their chosen profession, as well as broadly educated citizens.

Equipment.

The laboratories and apparatus of the scientific departments of the University, and the libraries of the Agricultural Experiment Station and University, are at the command of the students in the College of Agriculture. The farm of the Agricultural Experiment Station, together with its gardens, experiment plats, laboratories, and collections, are available for students desiring to acquaint themselves with the practical and scientific methods of conducting agricultural operations, and to investigate scientific questions relating to the progress and development of agriculture.

The farm is equipped with barns, stables, and other buildings, and presents a variety of soils and conditions existing upon many of the farms of the state. Upon this farm are kept different varieties of farm animals, the most improved agricultural implements, and facilities are provided for studying the most economic methods of handling live stock and their products, including poultry.

Expenses.

To West Virginia students, tuition is free.

To students from other States, tuition is $12.50 per quarter, (twelve weeks.)

The matriculation fee, payable by all students upon entering the University, is $5. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee, payable by all students, is $3.00 per quarter.

Board and room may be obtained in Morgantown at from $3 to $4 per week.

DEGREE COURSE OF STUDY.

Bachelor of Science of Agriculture..

Entrance Requirements. Students will be admitted to the Freshman class in this course on completion of thirty preparatory courses, of which, six courses in English, three in mathematics, three in his-

tory, two in chemistry, one in physics and one in botany, are prescribed and the remaining fourteen may be elected.

College Requirements. This degree will be conferred upon any student who satisfies the above entrance requirements and satisfactorily completes forty-two colleges courses, of which two in crop production, two in animal industry, one in dairying, three in horticulture, two in veterinary science, one in agricultural chemistry, one in economic botany, one in agricultural physics and one in economic entomology are prescribed.

At least six additional courses must be elected from the technical courses announced in the College of Agriculture, and the remaining twenty-two may be elected from the courses given in the College of Arts and Sciences. The Dean of the College of Agriculture will act as the student's class officer and adviser, and will have authority to require such elective courses as he may consider necessary or advisable.

DIPLOMA COURSE.

This is a two year course in agriculture, open to students with an intelligent knowledge of English, arithmetic, geography, and United States History. A Diploma of Graduation will be granted on the completion of this course, which consists of twenty-four courses, twelve of which must be elected from the technical courses announced in the College of Agriculture.

The remaining twelve courses may be elected from the courses given in the Preparatory School or the College of Arts and Sciences, subject to the advice of the Dean of the College of Agriculture.

CERTIFICATE COURSE.

No entrance requirements are made for this course. A certificate, indicating the work done, will be granted on the completion of this course, which consists of twelve selected technical courses announced in the College of Agriculture. It is confidently believed that many young and middle aged men who are engaged in farming, or expect to become farmers, will find it greatly to their advantage to devote one school year to this course, if for any reason they cannot give the time necessary to complete a longer course. Students may complete this course in any three terms of twelve weeks each.

SHORT COURSES.

One Quarter Course in Agriculture.

This course covers a period of twelve weeks, during the winter term, and is designed to give students, in the briefest time possible, some knowledge of the principles of agriculture, horticulture, soils,

farm crops, fertilization, and the principles of breeding, caring for, and feeding animals.

One Quarter Course in Animal Industry.

This is a winter quarter course in veterinary science, stock breeding, stock feeding, and a general survey of the subject of animal industry. The purpose is not to make veterinary surgeons, but to enable students to diagnose properly the principal diseases among farm animals, to treat common accidents, to use preventive measures, and to understand the principles of breeding and feeding domestic animals.

One Quarter Course in Horticulture.

This is work which may be taken in the winter quarter and consists of studies in plant propagation (course 1); principles of fruit culture and pomology (course 2). Economic botany and economic entomology should be taken parallel with these subjects.

One Quarter Course in Poultry Industry.

This course is designed to meet the needs of those who expect to engage in the poultry industry. Practice will be given in the operation of different makes of incubators and brooders; feeding for egg production; fattening fowls for market; caponizing; judging and mating. The lectures will cover the origin, classification, and characteristics of domestic fowls, breeding, feeding, management, and the construction of poultry buildings.

One Quarter Course in Dairying.

Instruction will be given both by lectures and demonstrations, and each student will have an opportunity to become expert in the practical operations of dairying. Among the subjects which will be discussed will be the use of the Babcock test, the ripening of cream, separating, churning, salting, working, and packing butter; the care of milk; the selection and care of dairy cows, feeds and feeding; the construction and care of stables, etc. This course is intended to be very practical and should be helpful to anyone who expects to labor in this field.

DEPARTMENTS OF INSTRUCTION

Only the technical courses are described here. For the other courses which may be elected by students in the College of Agriculture, see the courses in the College of Arts and Sciences.

AGRICULTURE.

Professor Atkeson.

1. Soils and Farm Crops. Lectures and recitations. First principles of agriculture; origin, cultivation, drainage, and classification of soils; indications of fertility; production and handling of farm crops; preparation of land for the seed and subsequent care of the plant. Fall, 9:30; 22 W.

2. Principles of Breeding. Recitations and lectures. What is meant by breeding; how to attain the ideal; heredity; atavism, variation, selection, correlation, in-and-in breeding, cross breeding and grading; influence of climate and environment upon habits and development. Winter, 11:30; 22 W.

3. Feeds and Feeding. Lectures and recitations. Laws of animal nutrition; composition and digestibility of feeding stuffs; feeding farm animals; feeding for milk, muscle and fat; sources of food; how the animals use food; preparation of food; influence of food on animal form; study of rations and feeding standards. Winter, 8:30; 22 W.

4. Rural Economics. Lectures and recitations. Farming as a business; method of keeping farm accounts; a brief study of the laws that directly concern the farmer; how the farmer is affected by industrial and social conditions; the mutual relations of agriculture and other industries; value and prices of land and agricultural products; land tenure; co-operation; a careful study of all questions affecting agriculture. Spring, 9:30; 22 W.

5. History of Agriculture. Lectures and recitations. A general history of agriculture, beginning with ancient times and tracing the history of agriculture, agricultural methods, and the development of trade and commerce through all ages to the present; a special study of the present practices and methods of competing with foreign countries. Spring, 11:30; 22 W.

6. **Commercial Geography.** A description of the surface of the earth, with special reference to the production, manufacture, transportation, and exchange of articles of trade. A general outline of the countries of the world, soil, climate, agricultural products, forests, manufactories, quarries, mines, centers of industry, foreign relations, ways of communication, social relations and conditions, imports, exports, and markets. Special attention is given to the study of the United States. Fall, 10:30; 22 W.

7. **Fertilizers and Manure.** Lectures and recitations. General relations of soil and air to plants. The atmosphere as a source of plant food; relations of the water to the soil; movements of water in the soil; soils as chemical agents; farm yard manures; chemical fertilizers; phosphatic and potassic manures; magnesium, sodium, and lime compounds. Winter, 9:30; 22 W.

8. **Agricultural Science.** Lectures and recitations. Continuation of course 7. Green manuring; humus and vegetable moulds; composts and modes of applying manures; rotation of crops; irrigation; growth of the crops; maintenance of meadows and pastures, and a general discussion of the methods of extensive and intensive farming.
Spring, 10:30; 22 W.

9. **Cereal Crops.** Lectures and recitations. A comprehensive study of the history, characteristics, and cultivation of the grain producing plants, as related to American and West Virginia conditions.
Winter, 10:30; 22 W.

10. **Farm Equipment.** Lectures and recitations. Selecting, planting and equiping farms; planning and erecting farm buildings and fences; building roads; farm vehicles and machinery; farm implements and the application of different kinds of power for farm purposes. Half course. Fall, 11:30; 22 W.

11. **West Virginia Agriculture.** Lectures. Agricultural, horticultural, dairy and live stock possibilities of West Virginia. Local conditions throughout the state will be considered, in connection with their adaptation to special agricultural purposes. Class discussions and required papers on assigned subjects. Reference reading.
Half course. Fall, 11:30; 22 W.

12. **Live Stock Management.** Lectures and recitations. Care of domestic animals in barn and field; the management of flocks and herds, and the care of work animals and driving horses.
Half course. Spring, 8:30; 22 W.

13. **Forage Crops.** Lectures and recitations. This course is supplemental to course 12, and deals with how to cultivate, harvest, and use forage crops. Half course. Spring, 8:30; 22 W.

HORTICULTURE.

Mr. T. C. Johnson.

The instruction offered in this department is of a practical nature and especial stress is laid upon that part which is particularly applicable to the conditions of West Virginia.

1. Plant Propagation. The instruction offered under this heading not only serves as a foundation for the courses in fruit growing and vegetable gardening, but also explains the theory of plant life, the essentials for its thrifty existence and the means at man's disposal for providing these conditions. The chief topics considered are: Germination, multiplication by cuttings, layers, stolons, buds, grafts, the processes of reproduction, such as pollination and its effects upon plant structures, and artificial pollination. Opportunity is given for actual practice in connection with these topics.

One term in botany must be studied before, or parallel, with this course. Fall, 8:30; 9 A.

2. Fruit-Growing. This course aims to give students a knowledge of the theory and practice of fruit-growing, with special reference to West Virginia conditions. The chief topics considered are the location of a fruit plantation, soils, sites, choosing varieties, the selection of nursery stock, planting, the why and how of orchard tillage, fertilizing the orchard, pruning, how to combat insects and diseases, small fruit culture. As far as possible the lectures are illustrated by practical handiwork. Winter, 8:30; 9 A.

3. Vegetable Gardening. An untechnical discussion of the principles underlying the propagation, planting and cultivation of garden vegetables, with special reference to West Virginia conditions. Some of the points considered are: necessary capital and equipment; the location, garden sites and soils; hot bed construction and management; rotation of crops; choosing varieties; marketing and storing; injurious insects and diseases; specific suggestion on the cultivation of each of the common garden vegetables. Practical work in making hot beds, seed-sowing, etc. Spring, 8:30; 9 A.

4. Plant Breeding. A study of evolution and heredity, and the methods of plant breeding, as applied to cultivated plants. This course is designed to meet the requirements of advanced students.

Prerequisites: Two courses in botany, and courses 1 and 2 in horticulture.

Hours by appointment when three or more students have chosen the course.

5. Forestry. This course is devoted to the consideration of the principles of scientific forestry, with special reference to the conditions presented in West Virginia and the United States. Some of the topics

are: protection of growing crops, re-forestation, forest management, equable climate and future timber supply. This work is open to any student who has had elementary training in botany.

Hours by appointment when three or more students have chosen the course. Systematic reading will be given for a smaller number.

6. Landscape Gardening. This course is given with particular reference to the planting and care of home and school grounds. It includes suggestions for the arrangements of trees, shrubs and flowers about the home, so as to secure the most artistic effect; the choice of plants; the position and construction of walks and drives; the making and care of lawns.

Ten lectures offered during the winter term. Hour and place to be announced at that time.

VETERINARY SCIENCE.

Dr. Ruhl.

These courses are given during the winter term only.

The purpose of these courses is to give students an elementary knowledge of veterinary medicine, which will enable them to diagnose the principal diseases of domestic animals, to treat intelligently ordinary diseases and accidents, and to adopt preventive measures. Owing to the improvement in breeding and the increase in value of all farm animals, this branch of agriculture is receiving considerable attention. This state is especially adapted for engaging in this vocation.

1. Comparative Anatomy of Domestic Animals. This is taught by a series of lectures, and supplemented by demonstration from charts and postmortems on the cadaver.

Materia Medica, Therapeutics, and Pharmacy. The lectures on this subject will be illustrated by an exhibition of the principal drugs used in veterinary medicine, their actions, uses and doses prescribed; also the manner of preparing, preserving, and administering.

Winter, 9:30; A

2. Theory and Practice of Veterinary Medicine. This course will consist of lectures on diseases of domestic animals and, whenever possible, demonstrations upon the subject itself.

Obstetrics will embrace lectures and illustrations of diseases, and incidents of pregnancy and obstetrical operations. Winter, 9:30; A.

3. Principles of Surgery. Instruction in this branch includes dental operations and treatment of disease requiring surgical interference.

Lameness of Animals. Special attention regarding location and treatment.

Prerequisites, courses 1 and 2. Winter, hour to be arranged.

4. Clinical Instruction. The free clinics provide ample material for the student to become familiar with the manner of examination of patients.

The course considers the administration of medicines, the treatment of disease, examination for soundness, and ascertaining age.

Winter, 1:30; A.

5. Practical Exercises. Subjects are provided by the College and students will be required to bring their knowledge into practice, securing of patients for operation and actual performance of operations, treatment of wounds, and application of dressings.

Prerequisites, courses 1, 2, and 4. Winter, hour to be arranged.

DAIRYING.

Mr. Brainerd.

1. Home Dairying. This course will consist of a study of the care of milk, separators and separation, ripening of cream, including starters and the acid test, churns and churning, working, salting, printing and packing butter, Babcock test for butter fat, and care of dairy machinery. Enough laboratory work will be given to make each student proficient in each of the above operations.

Fall, Winter, and Spring, 1:30; M.

2. History and Characteristics of Breeds. This course will deal with the improved breeds of horses, cattle, sheep and swine. A study of the origin, development, distribution and characteristics of each breed will be made. Fall, 8:30; M.

3. Testing Dairy Products. This course includes a study of the composition of milk, tests for butter fat, tests for preservatives in milk, application of lactometer, calculating butter and cheese yields, and butter analysis. Winter, hour to be arranged.

4. Dairy Bacteriology. This course will consist of a study of bacteria as they affect the dairyman, including contamination of milk, fermentation in milk, disease germs transmissible to man through milk, and preservation of milk for commercial purposes.

One-half course. Spring, hour to be arranged.

5. Stock Judging and Pedigree. This course will consist of a study of standards and practice in judging by score cards and the tracing and writing of pedigrees. The University stock and that of near-by stock men will be used in judging.

One-half course. Spring, hour to be arranged.

BACTERIOLOGY AND PLANT PATHOLOGY.

Professor Sheldon and Mr. Post.

The following courses are offered in part for the degree of Master of Arts. Students should consult with the head of the department before registering for courses 4 and 5.

1. **General Bacteriology.** This course is offered as a preparation for other courses in bacteriology and plant pathology. It may be elected by students who desire a general knowledge of bacteriology and bacteriological technique. Lectures, recitations and laboratory work. Frost's "Laboratory Guide in Elementary Bacteriology" will be used as a text. Prerequisite, two courses in botany.

Winter, 2 P. M.; 10 A.

2. **General Bacteriology.** Continuation of course 1.

Spring, 2 P. M.; 10 A.

3. **Agricultural Bacteriology.** A course arranged to meet the needs of students in the College of Agriculture. Lectures, recitations and laboratory work. The laboratory work will consist of the study of bacteria in their relation to fermentation and decay, to soils and crops, to the pollution of water supplies, to milk and its products, and to the diseases of cultivated plants and domestic animals. Prerequisite, course 1. Spring, 2 P. M.; 10 A.

4. **Elementary Plant Pathology.** Lectures, laboratory and field work on the more important plant diseases. Prerequisites, three courses in general botany, practice in identification of the grasses and the other flowering plants, and one course in plant physiology. Additional practice in the identification of the fungi is desirable, but not required. Fall, hours to be arranged. 10 A.

5. **Advanced Plant Pathology.** Original investigation with frequent consultations. Prerequisites, courses 1 and 4, and a reading knowledge of Latin, French and German. One or more courses. Throughout the year. Hours by appointment. 10 A.

ECONOMIC ENTOMOLOGY.

Mr. Rumsey.

1. **Economic Entomology.** This course will be conducted with a view to stimulating an interest in the study of insect life, and giving instruction along lines especially suited to the needs of the agricultural student. Text-books and laboratory demonstrations will be used to give such elementary instruction in economic and systematic Entomology as will give the student a general knowledge of the science. Instruction in the application of this knowledge will be given by means of practical field and research work. Spring, 8:30; A.

AGRICULTURAL CHEMISTRY.

Professor Hite.

1. **Agricultural Chemistry.** A course of lectures on the application of chemical principles to farm economy. The relation of chemistry to agriculture; relation of the plant to soil and air; sources of plant food; osmosis and osmotic pressure; mechanism of plant nutrition; germination and elaboration of plant tissue. Soils; their origin, formation, composition, classification, deterioration, and improvement. Nitrification of soils. Prerequisite, general elementary chemistry. Reference book, Johnson's "Agricultural Chemistry." Spring, 10:30; A.

2. **Agricultural Chemical Analysis.** This course includes the analysis of farm products, soils, ashes, fertilizers, mineral and drinking waters, etc. Prerequisites, Qualitative and Quantitative Analysis and Agricultural Chemistry 1. Laboratory guide, Wiley's "Principles and Practice of Agricultural Chemical Analysis."

Fall, Winter, Spring, 2:00; A.

AGRICULTURAL PHYSICS.

Professor Hodges.

15. **Agricultural Physics.** Mechanical analysis of soils; designing and construction of farm buildings, economy in form and material; ventilation and regulation of temperature; draft of farm machinery; farm motors and road construction. Open to all college students. Requirements, Physics 1, or equivalent work elsewhere. King's "Agricultural Physics." Spring, 8:30; 11 S.

MECHANIC ARTS.

Professor Jones, Mr. West, Mr. Cather, and Mr. Grumbein.

1. **Woodworking.** Instruction in carpentry, joinery, and other bench work. Exercises with the fundamental tools in soft and hard woods, and in matching, molding, joining, and making typical framed work; models of doors, gates, bridges, etc. Nine hours per week, or 3-5 course.

Fall, Monday, Wednesday, and Friday, 1:30; or Tuesday and Thursday, 1:30; and Saturday, 8:00. Mr. Grumbein, 21 E.

2. **Forging.** Exercises in drawing out and sizing, forming and welding, jointing and fitting iron; steel forging, tempering, annealing; determining quality of iron and steel and strength of students' welded joints; exercises in making and dressing typical farm tools. Nine hours a week, or 3-5 course.

Winter, Monday, Wednesday, and Friday, 1:30; Mr. West, 7 E.

3. **Machine Shop.** Iron work at the bench, chipping, filing, fitting, scraping, polishing; hand work with machine tools; drilling, tapping; brazing, tinning, soldering, laying out, cutting and forming sheet metal. Nine hours per week, or 3-5 course.

Spring, Monday, Wednesday, and Friday, 1:30; Mr. Cather, 11 E.

THE WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION

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The Regents of the West Virginia University.

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HORACE ATWOOD, M.S.Agr.....Assistant Agriculturist.
CHAS. D. HOWARD, B.S.....Associate Chemist.
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T. C. JOHNSON, B.S.Agr., A.M.....Assistant Horticulturist.
FREDERICK E. BROOKS.....Special Agent.
A. LEE POST, A.B.....Assistant Bacteriologist.
FRANK FITCH GROUT, B.S.....Assistant Chemist.
A. R. WHITEHILL.....Treasurer.
W. J. WHITE.....Bookkeeper.
M. A. STEWART.....Librarian.
ALICE ENGLE.....Stenographer.

The Experiment Station is a distinct and separate department of the University, and was established by the Board of Regents in 1887, by authority of an Act of Congress, known as the Hatch Act, which was passed on the 2d day of March of that year. The funds for carrying on the operations of the Station, with the exception of its earnings, are derived wholly from the general government. The aforesaid Act in section 2 fully states the object and purposes of the Experiment Station as follows:

"That it shall be the object and duty of said experiment station to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject

with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches and experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states and territories."

Bulletins and annual reports setting out results of experiments and investigations conducted at the Station are published for gratuitous distribution, and will be mailed, free, to any citizen of the state applying for them.

The Station invites correspondence, suggestions, and advice from farmers and others interested in this work, and all such, with reference to bulletins, experiments, or any matter relating to agriculture, will be welcomed and will receive careful and prompt attention. Correspondence should be addressed to the Director of the Station.

THE COLLEGE OF LAW

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.
ST. GEORGE TUCKER BROOKE, LL.D., Acting Dean, and Professor of Common and Statute Law.
WILLIAM P. WILLEY, A.M., Professor of Equity, Jurisprudence, and Commercial Law.
EDWIN MAXEY, D.C.L., LL.D., Associate Professor of Law.

COURSES OFFERED IN THE COLLEGE OF LAW.

There are three courses offered:

1. A course leading to the degree of Bachelor of Laws.
2. A course leading to a Diploma of Graduation in Law.
3. A course leading to the degree of Master of Laws.

ADMISSION.

1. To enter the course leading to the degree of Bachelor of Laws, the requirements are the same as the requirements to enter the College of Arts and Sciences.

2. To enter the course leading to a Diploma of Graduation in Law, the requirements are any twenty-four of the preparatory courses which may be offered for admission to the College of Arts and Sciences.

3. For the course leading to the degree of Master of Laws, see below.

4. Students upon registering in the College of Law, shall declare their intention (a) to become candidates for the diploma, or (b) for the degree of LL.B., or (c) to take a special course in preparation for the examination for admission to the bar.

5. When students register as special students for the Bar examination, they will not be permitted to change to the regular courses, except by the unanimous consent of the law faculty, and with the approval of the Committee on Classification and Grades.

6. Special students may take the regular course examinations and receive, for the courses passed, credit for the bar examination, but no credit shall be given for such courses toward a diploma or degree.

7. A "course" represents the amount of work done by a class meeting five times a week for one quarter (twelve weeks).

SPECIAL STUDENTS.

Persons who are at least twenty years of age, and who are not candidates for a degree or for a diploma, but who desire to prepare for the examination for admission to the bar, will be admitted to the College of Law as special students.

Any special student who completes the whole law course will receive a certificate of that fact signed by the law faculty, and any special student who requests it will receive from the law faculty a certificate showing the time he has spent in the College of Law, and the subjects completed.

CONDITIONAL ADMISSION.

Students who have not had opportunity to make the preparation required for admission may enter the Preparatory School of the University and complete their preparation. If a student lacks no more than three courses of the necessary preparation, he may be admitted conditionally, and complete his preparation while carrying on some of the studies of the Freshman year.

ADVANCED STANDING.

A candidate for advanced standing in law may receive credit for such of the courses required in the junior year as he may be able to pass satisfactory examinations upon before the faculty of the College of Law. Application for such examinations must be made by the student at the time of his matriculation in the University. Such examinations are held only once a year, namely, on the third, fourth, and fifth days of each fall quarter. These examinations are not open to students who have previously taken courses in the College of Law, but in exceptional cases, with the consent of the Law Faculty and the approval of the Committee on Classification and Grades, which must be obtained before the close of the preceding spring quarter, students who have taken work in Law may take advanced standing examinations for not more than two courses. The student should note that the instruction in Blackstone is given so largely by means of lectures that a study of the text without the lectures, or their equivalent, will not enable the student to pass the examination.

No student will be registered for any senior course in Law who has not received credit for at least eight junior courses. No credit for

advanced standing will be given for any branches of the senior year, and no degree nor diploma will be granted to any student who has not been in actual attendance upon the lectures during the whole of his senior year, nor will any student be admitted to the regular examination in any subject at the end of any quarter who has been irregular in attendance upon the lectures of that course, although he may have registered for the course at the beginning of the quarter.

DEGREES.

Bachelor of Laws.

The degree of Bachelor of Laws will be conferred upon any student who satisfies all entrance requirements, and satisfactorily completes twenty-two college courses in general culture, and twenty courses in law. Twenty courses in law constitute the regular two years law course. Moot court practice for two terms constitutes two of these courses. No candidate for the degree of Bachelor of Laws shall be allowed credit for any course in law until he shall have satisfied all entrance requirements, and shall have received credit for at least nine courses in academic work; nor shall any candidate for the degree of Bachelor of Laws be admitted to any senior class in law until he shall have received credit for all the academic work required for this degree. Graduates of the West Virginia University, or other colleges or universities of recognized standing, and students who have taken the required number of courses in general culture at a recognized college or university are admitted immediately to the junior class, and may complete the course and receive the degree of Bachelor of Laws in two years.

Master of Laws.

The degree of Master of Laws will be conferred upon the following conditions:

1. The candidate must have previously received the degree of Bachelor of Laws from this College of Law, or some other law school of equal grade.

2. He must pursue the study of law in this College for one year and complete to the satisfaction of the Faculty such a course as may be required.

3. He must, at the end of the year, present to the Faculty a satisfactory thesis on some approved subject.

This course will consist mainly of original investigation, under the direction of the faculty of the College of Law. Most of the work will be done in the Law Library, the "lawyer's laboratory." Legal questions will be given for solution, and cases for analysis. Cases with-

out syllabi will be given to the student, who will be required to make a complete report of each case,—the questions involved, how they arose, the pleadings, how the case was decided in the inferior court, how it was decided in the appelate court on appeal or writ of error, and the grounds on which the decision was made. The syllabus of the case will then be required, careful distinction being made between the decision and the mere obiter dictum of the judge who announced the decision.

Diploma of Graduation in Law.

A Diploma of Graduation in Law will be conferred upon any student who satisfies the entrance requirements to the course leading to the diploma, and passes satisfactory examinations in all the subjects taught in the College of Law.

CREDIT TOWARDS THE DEGREE OF BACHELOR OF ARTS.

The courses in Constitutional Law, International Law and Blackstone may be counted toward the degree of Bachelor of Arts.

COURSES OF INSTRUCTION.

There is no prescribed order in which a student in the four years degree course must take the general culture courses above indicated, which are required in the Freshman and Sophomore years. Each student will arrange with his class officer at the beginning of each quarter as to the courses he will take during that quarter. The class officer will use his judgment in the assignment of studies. It is his duty to see that each student under his charge takes work which will be most beneficial.

The studies of the Junior and Senior years constitute the professional course in law. These studies are all required, and must be taken in a designated order, unless special permission is obtained to vary that order. Students who are taking the two years diploma course have the same studies as Junior and Seniors in the four years degree course.

The professional course offered by the College of Law is the full, complete, and comprehensive course of the modern law school, which will prepare students for the practice of law in any part of the United States.

The aim of the College of Law is to make not mere theoretical, but practical lawyers, who will go from the lecture-room to the bar thoroughly equipped for the active duties of the profession, and to start them in life with high ideals of professional ethics and dignity.

The methods of instruction consist of lectures, references of illustrative cases, examinations from approved text-books, quizzes on lectures, the drawing of the various legal papers requisite in the ordinary practice of the law, and practice in moot courts. There are oral examinations daily on the subjects of the lectures and the text-books used, and comprehensive written examinations on each topic or branch of law as completed.

The professional part of the regular Law Course is designed to occupy the student two full years, and is divided between the College quarters in such a manner that students may with advantage enter at the beginning of any quarter and complete and obtain credit for the branches taught during that quarter. The following schedule shows the division of the quarters and subjects during the Junior and Senior years.

PROFESSIONAL COURSES IN LAW.

Junior Year.

Fall Quarter.

Blackstone (Book I). Professor Brooke. Full course, 8:30; 27 W.
Contracts. Professor Willey. Full course, 9:30; 26 W.
Criminal Law. Professor Maxey. First eight weeks, 11:30; 26 W.
Agency. Professor Maxey. Last six weeks, 10:30; 28 W.

Winter Quarter.

Blackstone (Book II). Professor Brooke. Full course, 8:30; 27 W.
Negotiable Paper, Suretyship and Guaranty. Professor Willey. Half course, 9:30; 26 W.
Bailments. Professor Willey. Half course, 9:30; 26 W.
Criminal Procedure. Professor Maxey. Full course, 11:30; 28 W.

Spring Quarter.

Blackstone (Book III). Professor Brooke. Full course, 8:30; 27 W.
International Law. Professor Maxey. Full course, 9:30; 28 W.
Insurance. Professor Maxey. Full course, 10:30; 28 W.
Civil and Criminal Evidence. Professor Willey. Full course, 11:30; 26 W.

Senior Year.

Fall Quarter.

Corporations. Professor Maxey. Full course, 9:30; 28 W.
Common Law Pleading and Practice. Professor Brooke. Full course, 10:30; 27 W.
Equity Jurisprudence and Equity Pleading. Professor Willey. Full course, 11:30; 26 W.

Winter Quarter.

Constitutional Law. Professor Maxey. Full course, 9:30; 28 W.
Torts. Professor Brooke. Full course, 10:30; 27 W.
Equity Jurisprudence and Equity Pleading. Professor Willey. Full course, 11:30; 26 W.
Court Practice. Professors Brooke, Willey, and Maxey. Full course.

Spring Quarter.

Sales. Professor Willey. Half course, first six weeks, 9:30; 26 W.
Partnership. Professor Willey. Half course, last six weeks, 9:30; 26 W.
Real Property. Professor Brooke. Full course, 10:30; 27 W.
Court Practice. Professors Brooke, Willey, and Maxey. Full course.

TEXT BOOKS.

The text-books used in the College of Law are carefully selected and are such as will be useful to the student throughout his professional career. They are all kept at the University, and sold to the student at a discount from the regular prices. They are as follows:

Blackstone's Commentaries.
Clark on Contracts.
Elliott on Insurance.
Clark on Criminal Law.
Clark on Criminal Procedure.
Norton on Negotiable Paper.
Hale on Bailments.
Mechem on Agency.
Cooley's Principles of the Constitution.
Shipman's Common Law Pleading and his Equity Pleading.
Brooke's Notes on Pleading and Practice in West Virginia.
Clark on Corporations.
Eaton's Equity.
Tiedman on Real Property.
Glenn's International Law.
Pollock on Torts.
Underhill's Evidence.
Tiffany on Sales.
George on Sales.
George on Partnership.

EXPENSES.

To West Virginia students, tuition is free.

To students from other states, tuition is $8 per quarter (twelve weeks).

The matriculation fee, payable by all students upon entering the University, is $5. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee, payable by all students, is $3.00 per quarter.

Board and room may be obtained in Morgantown at from $3 to $4 per week.

The text-books absolutely essential to the student in pursuing the prescribed course of study are not numerous or costly.

EXAMINATIONS FOR ADMISSION TO THE BAR.

It is made the duty of the law faculty by the laws of the state to examine all applicants for admission to practice law. These examinations are held at the University on the first Wednesday after the first day of January, the first Wednesday in April, and the first Wednesday after the fifteenth day of September, in each year.

The examinations cover the branches taught in the Junior and Senior years (the prescribed professional course) in the College of Law. The requirements for admission to these examinations are, that the applicant shall pay a fee of $5, that he shall have studied law for two years either in private or at some law school, and that he shall produce proof that he has at least a high school education. In all cases, if lack of such elementary English education appears upon the face of the law examination papers, it will be considered a very heavy discount from the value of the paper. These requirements are applicable also to the special law students in the University who may make application for admission to the Bar Examination; but special students who pass all their examinations in course need not produce proof of having read law before entering the special course.

The following applicants for admission to the Bar passed the examinations from September, 1904 to February, 1905, both inclusive:

Name of Applicant.	Residence.	Where Law Studies Were Pursued.
Avis, Charles	Logan, W. Va	W. Va. University.
Baker, R. W	Petersburg, W. Va	University of Va.
Butcher, Samuel Hutton	Fairmont, W. Va	" "
Copen, C. E	Elizabeth, W. Va	W. Va. University.
Cullinan, M. J	Dean, W. Va	" "
Deignan, Charles R	Wheeling, W. Va	University of Va.
Dunbar, Frank C	Morgantown, W. Va	W. Va. University.
Dotson, J. A	Hominy Falls, W. Va	" "
Fitzsimmons, J. M	Moundsville, W. Va	Law Office.
Henry, Eward W	Clarksburg, W. Va	Howard University, Washington, D. C.
Hall, L. S	New Martinsville, W. Va	University of Va.
Hill, O. J	McKim, W. Va	W. Va. University.
Jones, W. R	Clarksburg, W. Va	Law Office.
Kersner, W. L	Frankford, W. Va	" "
Layne, C. M	Washington, D. C	Columbian University.
Lee, G. G	Ripley, W. Va	W. Va. University.
Murphy, P. H	Sutton, W. Va	" "
Parker, John D	Clarksburg, W. Va	Howard University, Washington, D. C.
Stone, J. W. F	Buckhannon, W. Va	W. Va. University.
Shawkey, M. P	Charleston, W. Va	Law Office.
Statts, E. R	Evans, W. Va	W. Va. University.
VanCamp, Franklin	Sistersville, W. Va	Law Office.
Woodrae, J. D	Charleston, W. Va	National University, Washington, D. C.
White, C. T	Clarksburg, W. Va	Howard University, Washington, D. C.

LAW LIBRARY.

The College of Law has now a good library room, with stack-room attached, which contains about two thousand volumes of well selected books. It contains the United States Supreme Court Reports, also Massachusetts, New York, Pennsylvania, Virginia, West Virginia Reports, etc., a good selection of text-books, and is under the charge of the University librarian. The Law Library, small as it is, is much appreciated. It will be further enlarged.

MOOT COURTS.

However familiar the student may be with the principles and theories of law in all its branches, he will be more or less awkward and confused when he goes to the bar and attempts for the first time to

make a practical application of legal remedies, unless he has been previously drilled in such practice. The Moot Court supplies, as well as anything other than a judicial tribunal can do, the drill and discipline necessary to prepare the student for the trial tables. In these courts he is taught to apply legal remedies according to the common law and chancery systems of practice; to bring suits, draw papers, pleadings, briefs, etc., to take the various steps incident to bringing a cause to trial, and to try it according to the rules of evidence, including the argument, charge, verdict, motion in arrest of judgment, writ of error, etc. The Moot Court is organized in strict conformity to the practice of the regular courts in all its details. The students themselves act respectively as counsel, jurors, witnesses and officers of the court, thus learning by actual doing all the forms of court practice. The Circuit Moot Court is composed of all the law faculty, which gives dignity to the court, and enables the members of the court the better to illustrate the legal principles involved and explain the rules of practice. The grammatical accuracy, rhetoric, elocution, and courtesy of deportment of students, also come under review of the professor, and the young men are thus fitted to appear and conduct themselves at the bar as gentlemen and scholars as well as lawyers. The system of Moot Courts is thorough.

There is a Supreme Court of Appeals, composed of all three professors, the Dean sitting as President of the Court, to which all appeals from decrees, and writs of error to judgments rendered in the Circuit Court, may be taken. The system works admirably, and gives the students the practice in all the courts, following his case from the Circuit Court where it is brought, to the Supreme Court of Appeals, which determines finally all cases. Trials are occasionally held in Commencement Hall, and are open to the public.

THE COLLEGE OF MEDICINE

THE FACULTY.

At Morgantown.

DANIEL BOARDMAN PURINTON, LL.D., President.
ALEXANDER R. WHITEHILL, Ph.D., Professor of Chemistry.
THOMAS EDWARD HODGES, A.M., Professor of Physics.
JOHN B. JOHNSTON, Ph.D., Professor of Zoology.
JOHN L. SHELDON, Ph.D., Professor of Bacteriology.
JOHN NATHAN SIMPSON, A.B., M.D., Professor of Anatomy and Physiology.
FREDERICK LAWRENCE KORTRIGHT, D.Sc., Associate Professor of Chemistry.
JUSTIN F. GRANT, Ph.B., M.D., Assistant Professor in Anatomy.
ARTHUR LEE POST, A.B., Assistant Bacteriologist.

At Baltimore: College of Physicians and Surgeons.

ABRAM B. ARNOLD, M.D., Professor of Clinical Medicine.
THOS. OPIE, M.D., Professor of Gynecology and Dean of the Faculty.
THOMAS S. LATIMER, M.D., Professor of the Principles and Practice of Medicine.
AARON FRIEDENWALD, M.D., Professor of the Diseases of the Eye and Ear.
CHARLES F. BEVAN, M.D., Professor of the Principles and Practice of Surgery.
WILLIAM SIMON, Ph.D., M.D., Professor of Chemistry.
J. W. CHAMBERS, M.D., Professor of Surgery.
GEORGE J. PRESTON,A.B., M.D., Professor of Physiology and Nervous Diseases.
N. C. KEIRLE, A.M., M.D., Professor of Medical Jurisprudence, and Director of the Pasteur Institute.
WILLIAM F. LOCKWOOD, M.D., Professor of Materia Medica and Therapeutics.
ISAAC R. TRIMBLE, M.D., Professor of Anatomy and Clinical Surgery.
GEORGE W. DOBBIN, A.B., M.D., Professor of Obstetrics.
WILLIAM ROYAL STOKES, M.D., Professor of Pathology and Bacteriology.

EDWARD N. BRUSH, M.D., Professor of Psychiatry.
C. HAMPSON JONES, M.B.C.M., M.D., Professor of Diseases of the Eye and Ear.
JULIUS FRIEDENWALD, A.M., M.D., Clinical Professor of Diseases of the Stomach.
WILLIAM S. GARDINER, M.D., Associate Professor of Gynecology.
FRANK DYER SANGER, M.D., Clinical Professor of Diseases of the Nose, Throat, and Chest.
STANDISH McCLEARY, M.D., Associate Professor of Histology and Pathology.
CHARLES E. BROCK, M.D., Associate Professor of Obstetrics.
JOHN RUHRAH, M.D., Clinical Professor of Diseases of Children.
H. H. HAYDEN, M.D., Associate Professor of Human and Comparative Anatomy.
CHARLES F. BLAKE, M.D., Associate Professor of Surgery.
SAMUEL J. FORT, M.D., Associate Professor of Materia Medica and Pharmacology.
DANIEL BASE, Ph.D., Associate Professor of Chemistry.
ALEXIUS McGLANNAN, M.D., Associate Professor of Physiological Chemistry.
HENRY G. BECK, M.D., Associate Professor of Clinical Medicine.
J. HALL PLEASANTS, A.B., M.D., Associate Professor of Clinical Medicine.
CARY B. GAMBLE, Jr., A.B., M.D., Associate Professor of Genito-Urinary Surgery.
ALBERTUS COTTON, M.D., Associate Professor of Orthopedic Surgery.
ARCHIBALD C. HARRISON, M.D., Demonstrator of Anatomy.
GLENN M. LITSINGER, M.D., Demonstrator of Obstetrics.
SAMUEL F DARLING, M.D., Demonstrator of Chemistry.
W. W. REQUARDT, M.D., Demonstrator of Surgery.
C. W. MITCHELL, M.D., Demonstrator of Diseases of the Nose, Throat, and Chest.
H. C. KNAPP, M.D., Demonstrator in the Clinical Laboratory.
JOHN MASON KNOX, Jr., M.D., Demonstrator of Pathology and Physical Diagnosis.
CHARLES B. CANBY, M.D., Demonstrator of Pathology.
OTTO C. GLASER, A.B., Demonstrator of Embryology.
LEONARD KEENE HIRSCHBERG, A.B., M.D., Demonstrator of Bacteriology and Assistant in Neurology
C. W. G. ROHRER, M.D., Demonstrator of Anatomy.
A. SAMUELS, M.D., Assistant in Genito-Urinary Surgery
OTTO SCHAFER, M.D., Assistant in Surgery.
W. EDWARD MARGUDER, M.D., Assistant in Diseases of Children.
L. J. ROSENTHAL, M.D., Assistant in Diseases of Stomach.

AFFILIATION.

By an agreement with the College of Physicians and Surgeons of Baltimore, Md., this college becomes the medical department of West Virginia University. It is arranged that the laboratory courses constituting the first two years of the medical course may be done either in Morgantown or in Baltimore, and the clinical work of the third and fourth years will be done in Baltimore. The same standard of efficiency will be maintained in both schools. Students will go from their work in Morgantown to Baltimore without further examination.

The advantages which this arrangement offers to students of West Virginia are free tuition, low rate of living expenses, opportunities for broad scientific training and for general culture studies, and the inspiring associations of a college town. Excellent opportunities are offered to those who wish to make more extensive preparation for their medical work than the entrance requirements necessitate, and to those also who are deficient in some of the entrance requirements. The laboratories of the several departments of the University are well equipped and all their facilities are open to medical students. In the biological and histological laboratories each student is furnished with a separate microscope and there is an abundant supply of all the necessary apparatus and materials.

Under the anatomical law there is supplied an abundance of material for dissection.

In the Library there is a fairly large and well selected collection of medical text and reference books, and the libraries of the allied scientific departments are supplied with the most important books and current publications.

The College of Physicians and Surgeons is one of the best equipped medical schools in the east, and numbers among its alumni some of the foremost practioners of our state. The college is in its thirty-fourth year. Its buildings are thoroughly adapted to all the requirements of a modern medical school. Its clinics are very large and varied and its faculty includes some of the most prominent medical men in Baltimore.

Clinical facilities are furnished by the Baltimore City Hospital, the Hospital for the Colored Race, the Bay View Hospital (with two thousand beds), the Nursery and Child's Hospital, the Lying-in Hospital, and the City Hospital Dispensary, where 25,000 patients are treated annually. The College also conducts a Pasteur Institute for the treatment of hydrophobia.

Students who take the first two years work of the medical course in Morgantown will, upon completing the course receive their diploma from the College of Physicians and Surgeons, but the degree will also

be conferred at Morgantown and the students will be considered alumni of West Virginia University.

The Woman's Medical College of Baltimore.

Arrangements upon the same terms as those above described have been made with the Woman's Medical College of Baltimore, so that women who take their first two years work in this University may complete the course in Baltimore.

REQUIREMENTS FOR ADMISSION.

After September 1, 1904, candidates for admission to the College of Medicine must have received credit for the following twenty-four courses given in the Preparatory School or must pass examinations on their equivalent. Of the twenty-four courses the following nineteen are prescribed, viz.:

English,	6 courses.
Latin,	3 courses.
Algebra,	3 courses.
Geometry,	2 courses.
Elementary Physics,	2 courses.
Botany,	1 course.
History,	2 courses.

The remaining four courses may be elected from any work offered in the Preparatory School.

ADMISSION WITHOUT EXAMINATION.

Graduates of reputable colleges, of State Normals Schools, accredited High Schools and Preparatory Schools, and those who have passed the entrance examinations provided by the Statutes of the State of New York are admitted to the College of Medicine without examination.

FURTHER PREPARATION RECOMMENDED.

As a suitable preparation for the study of medicine, students should be familiar with the chief facts of general biology, embryology, and comparative anatomy; of elementary botany; of general physics; and should have a reading knowledge of German and French. With this preparation a student is put in touch with the current thought of medicine and its allied sciences and is enabled to get his knowledge at first hand. With this in view, students at Morgantown are earnestly

advised to complete the following courses offered in the Preparatory School before beginning their work in medicine.

English,	6 courses.
Latin,	4 courses.
French,	3 courses.
German,	6 courses.
Mathematics,	6 courses.
Zoology,	3 courses.
Physics,	2 courses.
Botany,	2 courses.

The following courses offered in the College of Arts and Sciences should be completed either before beginning medical work or while pursuing it:

Zoology (Embryology and Comparative Anatomy) courses 6, 7, 8.
Physics (General Physics and Laboratory) courses 10, 4.
German and French, if not taken in the Preparatory School.

COMBINED LITERARY AND MEDICAL COURSE.

Attention is especially called to the fact that the courses offered in the College of Medicine at Morgantown are open to students in the College of Arts and Sciences, where they are credited toward the degree of Bachelor of Science. This enables the student to complete two years of medical work as a part of the course which leads to his baccalaureate degree. After the completion of the remaining two years of medical work at Baltimore, he will receive the degree of M. D. from this University. The combined literary and medical course requires in this way six years of consecutive work instead of the eight years which these courses would require separately. Students who wish to avail themselves of this plan will register in the College of Arts and Sciences as candidates for the degree of Bachelor of Science. They are advised to devote the first two years of their course to work in modern languages, biology, chemistry, and physics. In this way they will lay a broad foundation in science for their medical studies, while not neglecting the side of general culture.

Recent movements in medical education in this country seem to show that such a six years course as is outlined above is coming to be regarded by both the medical profession and the majority of the better schools as the most satisfactory course in medicine, having regard to the financial and other limitations of the student, and to the urgent need for general intelligence, broad scientific knowledge and the highest order of mental capability, acumen, and alertness, in the practice of modern medicine, which is ever growing more complex, more varied, and more exacting in its demands on the practitioner.

FEES.

A fee of five dollars will be deposited by each student taking a course in gross anatomy to cover possible loss of materials loaned to students for study at their rooms. Whatever remains of the fee will be returned at the close of the year.

The following fees are charged to cover cost of materials used:

$1.00 per course in Histology.
$3.00 per course in Bacteriology.
$5.00 for each part dissected in Anatomy.
$3.00 per course in Embryology.
$3.00 per course in Pathology.
$2.00 per quarter in General Chemistry.
$10.00 per quarter in Medical Organic Chemistry.

DISTRIBUTION OF THE TWO YEARS WORK IN MEDICINE.

First Year.

Hour.	Fall.	Winter.	Spring.
8:30			Pharmacology 1
9:30	Chemistry 1	Chemistry 2	Chemistry 3
10:30		Physiology 3	Physiology 4
11:30	Osteology	Anat. Quiz.	Anat. Quiz.
1:30-4:00	Histology	Dissection	Dissection, 6 weeks Neurology, 6 weeks

Second Year.

8:30 9:30	Pharmacology 2 Physiology 5	Pathology 1	Pathology 2
10:30 11:30	Embryology	Chemistry 11	Chemistry 12
1:30-4:00	Bacteriology	Dissection and Quiz.	Dissection and Quiz., 6 weeks Physical Diagnosis, 6 weeks

Classes meet five times a week in all subjects.

DEPARTMENTS OF INSTRUCTION

For the announcement of the full course in Medicine students are referred to the catalogue of the College of Physicians and Surgeons of Baltimore. The following is the announcement of work offered in Morgantown:

ANATOMY.

Dr. Grant.

1. **Osteology.** Study of bones and joints. Lectures, demonstrations, and quizzes. Fall. 1 W.

2. **Dissection.** Careful dissection of the body with reference to nerves, blood vessels, and muscles. The cadaver is divided into three parts, each student dissecting an arm, a leg, including the abdominal viscera, and the head, including the thoracic viscera. For each part a fee of five dollars is charged. Winter, Anatomical Laboratory.

3. **Dissection.** Continuation of course 2. Spring, Anatomical Laboratory.

4. **Normal Histology.** Microscopic study of the tissues and organs, human and animal. Fall, 1 W.

5. **Dissection and Quizzes.** Continuation of course 3. Winter, 1:30—4:00 P. M.; Anatomical Laboratory.

6. **Dissection and Quizzes.** Continuation of course 5. Winter, 1:30—4:00 P. M.; Anatomical Laboratory.

PHYSIOLOGY.

Dr. Simpson.

1. **Elementary Physiology.** Cells, tissues, and organs of the human body and their functions, using the microscope freely. Practical demonstration in digestion, etc. Text-book: Martin's Human Body, briefer course. For preparatory students. Fall, 10:30; Winter, 9:30; 1 W.

2. **Elementary Physiology.** Continuation of course 1. With demonstration on animals. Martin's Human Body completed. Winter, 8:30; 1 W.

3. **Advanced Physiology.** Muscle, nerve, circulation, blood, and blood pressure. Lectures, demonstrations, and quizzes. For medical students. Winter, 10:30; 1 W.

4. **Advanced Physiology.** Continuation of course 3. Respiration, foods, chemistry of blood, digestion, secretions, and excretions. Text-book: Kirke's Handbook. Spring, 10:30; 1 W.

5. **Advanced Physiology.** Continuation of course 4. Functions of the central nervous system and special senses. Fall, 9:30; 1 W.

EMBRYOLOGY.

Professor Johnston.

Human Embryology. Lectures, reading, quizzes, and laboratory work. Text-book: McMurrich.

Fall, 10:30—12:30; 17 W.

Neurology. A study of the human nervous system. Six weeks.

Spring, 1:30—4:30; 17 W.

CHEMISTRY.

Professor Whitehill and Associate Professor Kortright.

1. **Inorganic Chemistry.** This course is designed for beginners, and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Fall, first section, 9:30; second section, 11:30; Spring, 10:30; 20 S.

2. **Inorganic Chemistry.** This course includes the study of the metallic elements, and special attention is paid to the application of Chemistry in Agriculture, Engineering, Medicine, and every-day life.

Winter, first section, 9:30; second section, 11:30; Fall, 10:30; 20 S.

3. **Organic Chemistry.** This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations.

Spring, first section, 9:30; second section, 11:30; 20 S.

11. **Medical Organic Chemistry.** This is a lecture and laboratory course in such special subjects of Organic Chemistry as carbohydrates, fats, proteins, and foods in general, together with certain organic amido and other nitrogenous compounds.

Winter, 10:30 to 12:30; 21 S.

12. **Medical Analysis.** This course includes a study and practice of the essential analytical methods used in the modern practice of medicine. Spring, 10:30 to 12:30; 21 S.

PHARMACOLOGY.

Dr. Simpson.

1. **Origin and Use of Drugs.** Their preparation and dosage. Spring, 8:30; 1 W.

2. **Study of the Action of Drugs on Lower Animals.** Lectures and quizzes. Fall, 8:30; 1 W.

BACTERIOLOGY.

Mr. Post.

Medical Bacteriology. A practical laboratory course supplemented by lectures and recitations. Each student will become familiar with methods of sterilization and disinfection, the preparation and use of culture media, the morphology and life history of the more important non-pathogenic and pathogenic bacteria, and the bacterial analysis of air, soil, water, and milk. Fall, 1:30—4:00 P. M.; 10 A.

PATHOLOGICAL ANATOMY.

Dr. Grant.

1. **Microscopic Study of Diseased Tissues and New Growths.** Winter, 8:30; 1 W.
2. **Continuation of Course 1.** Spring, 8:30; 1 W.
3. **Physical Diagnosis.** Six weeks. Spring, 1:30—4:00 P. M.; 1 W.

MEDICAL JURISPRUDENCE.

A course of lectures covering the medico legal aspect of medicine. Spring, hours to be arranged; Dr. Maxey.

TEXT BOOKS.

Anatomy: Gray or Morris.
Histology: Piersol or Boehm-Davidhoff-Huber.
Embryology: McMurrich.
Physiology: Kirke, Foster, or American Text-book.
Chemistry: Remsen.
Bacteriology: Muir and Richie.
Pathology: Delafield and Prudden.
Pharmacology: Sollman, H. C. Wood.
Physiological Chemistry: Simon.

THE SCHOOL OF MUSIC

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.
ROSS SPENCE, Director, Teacher of Violin, Musical History and Mandolin. Director of Glee and Mandolin Clubs.
ALEXANDER STEWART THOMPSON, Senior Teacher in the Vocal Department.
RUDOLF WERTIME, Senior Teacher in the Piano Department.
GRACE MARTIN SNEE, Instructor on the Piano and Pipe Organ.
SUSAN MAXWELL MOORE, Instructor in the Piano Department.
MABEL CONSTANCE FOSTER, Instructor on the Piano and in Harmony.
WALTER A. MESTREZAT, Assistant on Wind Instruments.
*FRANCES THOMAS GORDON, Assistant in Voice.
BERTHA JANE SMITH, Assistant in the Piano Department.
ELIZABETH CLAYTON, Assistant in the Piano Department.
BLANCHE BARNES, Assistant in the Piano Department.

ORIGIN AND PURPOSE.

The School of Music was established in 1897 as one of the component schools of the University. It stands for high ideals and strives by means of thorough training to develop to the highest stage of artistic capability all those possessing true musical talent.

SPECIAL ADVANTAGES.

There are many advantages to a student in a school of music connected with a University. Opportunities are afforded for studying in the various other departments, thus securing to the music student a symmetrical education, literary and scientific, as well as musical. On the other hand, the existence of a department of music affords advantages in musical training to the students in all the other departments.

Instruction is furnished free of charge in a number of branches, while in others the tuition fees are merely nominal. The exceptionally

*Resigned, Jan. 1, 1905.

low tuition rates which prevail here are made possible by means of state aid.

BUILDING AND EQUIPMENT.

The school now occupies the entire upper floor of Woodburn Hall, which contains well appointed rooms for instruction, supplied with Knabe pianos and other accessories. A new Recital Hall, seating 400 people, has been provided this past year especially for students' recitals and lectures.

Commencement Hall, seating 1,500 people, contains a magnificent new three-manual pipe organ—tubular pneumatic—built upon the universal wind-chest system, and containing 76 stops and mechanical accessories. This organ, which receives power from an electric motor, is available for practice.

CHORAL SOCIETY SERIES.

A series of concerts called the Choral Society Series is given during the year, in which the Choral Society at times takes part. The closing concert of this series is given by the faculty at Commencement. Students are expected to attend them as part of their instruction. Some of the leading artists of the country are engaged for these concerts; among those who have appeared during the past three seasons are Mr. Max Heinrich, Mrs. Jenny Osborne Hannah (twice), Mr. Frank Hannah (twice), Mr. Anton Kaspar (four times), Mr. John Porter Lawrence (four times), Mr. William Sherwood (twice), Mr. Richard Strauss, Mme. Strauss de Ahne, Victor Herbert, Alberto Jonas, Genevra Johnstone Bishop, Glenn Hall, E. Normanton Bilbie, and the Pittsburg Orchestra.

STUDENTS' RECITALS.

These recitals have been established as a means of developing confidence in the student. Some are open to the public. others only to the intimate friends of the participants. They are held on the average of once each week during the year.

THE CHORAL SOCIETY AND GLEE CLUB.

The Choral Society, under the direction of Mr. A. S. Thompson, has about 100 members. All students of the University who can sing are admitted to the Choral Society upon payment of fifty cents, the membership fee. For those who are not students the fee is $1.00.

These dues admit the members to all concerts of the Choral Society Series.

Members of the Glee Club are chosen by the Director, Mr. Spence.

CREDIT FOR MUSIC ON COLLEGE COURSES.

Credit towards the degree of Bachelor of Arts will be given for courses in the Science and History of Music, not to exceed five in number.

DEPARTMENTS OF INSTRUCTION

Strict adherence to a fixed list of studies is not given. The needs of the individual student are considered and the studies varied accordingly. New works are carefully examined by the musical directors and those of value are adopted. An idea of the work covered in the different classes may be obtained from the following:

VOCAL DEPARTMENT.

No student can be classified in the collegiate course in voice without passing examination in solfeggio, or demonstrating to the satisfaction of the head of the department the ability to read music of moderate difficulty, and give evidence of the mastery of the elements of music. Concone's Fifty or Forty Lessons and Vaccai's Studies (when English is used) are among the preparatory studies.

First Year.

Voice Placing Exercises. Scales, sustained tones and articulation exercises; Marchesi's Studies; Concone's Twenty-five Lessons; songs by American composers, Denza, Cowen, Gastaldon, Jensen, Grieg, and Mendelssohn.

Second Year.

Voice Placing Exercises. Scales, etc.; Marchesi's Studies; Concone's Fifteen Lessons; songs or solos by Schubert, Schumann, Grieg, Haendel, or other good foreign and American composers.

Third Year.

Voice Placing Exercises. Marchesi's and Bordogni's exercises; solos from the standard oratorios and operas, Sullivan, Mendelssohn, Haendel, Mozart, and some of the Italian composers.

A Teacher's Certificate will be granted to those who complete the above three years' work, together with one year of harmony, and one year each of French, German, and Italian.

Fourth Year.

Haendelian Arias review, Beethoven songs, Wolf, Strauss, Brahms, and Franz songs, Wagnerian and other opera solos.

An Artist's Diploma will be granted to those who complete this course and who have passed all the requirements for a Teacher's Certificate. Artistic finish and quality of performance are deciding factors in the awarding of this diploma and all candidates for it are required to give a graduating vocal recital.

PIANO DEPARTMENT.

Teachers' Certificate.

Students must have studied from the following masters: Bach, Haendel, Haydn, Mozart, Beethoven, Schubert, Weber, Mendelssohn, Schumann, Chopin, Henselt, Liszt, Rubinstein, Brahms, Grieg, Saint-Saens, Moszkowski.

They must (a) pass an examination in harmony and history of music; (b) take a course in ensemble music in order to become familiar with the orchestral works of the masters and become good sight readers; (c) play a sonata for the Director of the School at final examinations.

This course will require three years.

Artists' Graduating Diploma.

The diploma of the artists' graduating class is given only to pupils who have attained such a degree of knowledge and technical skill as to enable them to play piano concertos and other brilliant compositions with the finish expected of artists.

Students must have studied from the following masters: Bach, Haendel, Haydn, Mozart, Beethoven, Schubert, Weber, Mendelssohn, Schumann, Chopin, Henselt, Liszt, Rubinstein, Brahms, Grieg, Saint-Saens, Moszkowski.

They must (a) pass an examination in harmony, history of music and counterpoint; (b) take a course in ensemble music in order to become familiar with the orchestral works of the masters and become good sight readers; (c) play a program or concerto at graduation.

This course will require four years.

VIOLIN DEPARTMENT.

Teachers' Certificate.

Violin Schools by David, Spohr, Sevcik; elementary studies and exercises by Wohlfahrt, Dancla, Hermann, Kayser. Etudes by Mazas, Kreutzer, Fiorillo, Rode. Selections from De Beriot, Wieniawski, Viotti, Rode, etc. Harmony.

This course will require three years.

Artists' Graduating Diploma.

Bach sonatas. Concertos by Mendelssohn, Molique, Spohr, Kreutzer, Beethoven, Bruch, etc.

Harmony. Musical History.

Knowledge of Piano. This course will require four years.

PREPARATORY VOCAL DEPARTMENT.

The work in this department consists of combined private and class lessons. It is presided over by Mr. Alexander Thompson. The beginners' classes have two sessions a week. The tuition is $7.50 a quarter in classes of four to ten scholars.

Outline of Study.

I. Classification of the child voice; the child's point of view; first exercises in voicing; forming correct habits.
II. Gentle use of the voice; the sense of tone.
III. Selection of rote songs; importance of pitch and compass.

Grammar Grades and High Schools.

I. Position; art of breathing; economy of breath.
II. Tone-production; simple intervals, syllables, numbers, vowels.
III. First steps in reading; notations; exercises in monotones, seconds, thirds, fourths, fifths, etc.
IV. The Major scale; its character; steps and half steps; tone relation; exercises in one and two parts.
V. Time-signatures; rhythm; beating time; time exercises.
VI. Resting and preserving the voice; shading; making voices mellow; beauty of tone.
VII. The singing tone; singing at sight.
VIII. The use of signatures and accidentals.
IX. Scales and their signatures; the major and minor modes; chromatic forms.
X. Modulation of key; transposition of scale; the relative major and minor keys.
XI. Writing and singing of simple first chords; basis of reading; writing in diction.
XII. Musical characters indicating rate, force, style, and expression.

Classes are arranged separately for pupils whose ages range from 5 to 7 years, 8 to 10 years, 11 to 13 years, 14 to 16 years. All over those years will be formed into an advanced class.

PREPARATORY PIANO DEPARTMENT.

The best time to begin the study of music is between the ages of seven and ten years and the proper instrument for the first years of musical instruction is the pianoforte, with its fixed scale and easily formed tones. Kindergarten methods should be avoided before beginning regular pianoforte lessons. When the study of music is once begun, it should be taken up in earnest, as a part of the child's education, and not as a pastime; otherwise, the results being superficial, the child's enthusiasm will soon disappear, because of its inability to accomplish anything of value, either as a means of amusement or of culture. Children should be taught in a well conducted music school, and not at home or in a private studio, just as they should be taught in a good primary school and not by a governess or private tutor. In such a school the children come in contact with other pupils of their own age, and having an opportunity to measure their own progress with that of others, they are not likely to become indifferent and apathetic.

The School of Music offers a well organized Preparatory Department, presided over by Miss Susan M. Moore, of The Faelten Pianoforte School, Boston, Mass. The beginners' class has two sessions a week, one on Saturday morning and one on Wednesday afternoon after school hours. The tuition is $7.50 a quarter in classes of four scholars. Pupils generally remain in this course for two years, at the end of which time it becomes necessary to give them more individual attention.

The effects of this thorough training, besides being immediately apparent, are of inestimable value to those pupils who are fortunate enough to be able to take an extended course in music, for their teachers, being free to devote all their attention to those matters which belong to the advanced part of a course of study, have little difficulty in enabling them to become independent musicians.

Children in this department are taught sight-reading, transposition, and ensemble playing. They are required to do black board exercises and have a thorough course in ear training.

ORGAN AND CONDUCTING.

The organ course is intended to provide a thorough and complete education in the work of a church organist and accompanist. Students are required to take some studies on the piano and in musical theory, harmony, and simple counterpoint, before entering the organ school.

HARMONY, COUNTERPOINT, THEORY, MUSICAL HISTORY, SIGHT READING, AND EAR TRAINING.

These are considered among the most important subjects of the School of Music, as they are essential to an intelligent interpretation of music. Students are required to take at least three of these studies before graduating.

ENSEMBLE PLAYING.

It is necessary that a pianist should learn to accompany and also to be able to play in concert with other instruments. Special opportunities are offered the more advanced students to receive the necessary instruction.

ROMANCE AND MODERN LANGUAGES.

The close relation of the modern languages with music, and especially with vocal music, makes them important in every course of musical study. The inexhaustible and ever-increasing treasures of vocal music composed to German, French, and Italian texts alone, make indispensable a fair knowledge and correct pronunciation of these languages. The University offers superior advantages for the study of French, German, Italian, and Spanish.

The management is frequently called upon to recommend music teachers who are also prepared to teach modern languages, and such capability will give its possessor a decided advantage.

No contingent fees are charged Music students on account of their taking Conversational French, German or Italian, as required for their Diplomas in Music.

RHETORIC AND ELOCUTION.

The English Department of the University furnishes excellent opportunities for music students to fit themselves as teachers of rhetoric and elocution.

PUBLIC SCHOOL MUSIC.

Recognizing the demand in the public schools throughout the entire country for supervisors of music who are competent to present the subject of school music in a clear, concise, and comprehensive manner, the School of Music offers a thorough course in this study. The department will acquaint pupils with all the prominent systems now published, such as "Educational" and "Weaver" (Ginn & Co.); "Modern" and "Normal" (Silver, Burdette & Co.); "Natural" and "Model" (American Book Co.); "Novello" (Novello, Ewer & Co.). The course costs $7.50 a quarter in classes.

TUITION PER QUARTER.

The following table shows the rates of tuition for private lessons of thirty minutes in length:

	Number of Lessons per week.			
Vocal:—	One.	Two.	Three.	Four.
Alexander Stewart Thompson...	$12.00	$20.00	$29.00	$36.00
Twenty minute lessons.....	10.00	16.00	23.00	28.00
Piano:—				
Rudolph Wertime	12.00	20.00	29.00	36.00
Grace Martin Snee.....	10.00	16.00	23.00	
Susan Maxwell Moore.....	10.00	16.00	23.00	
Mabel Constance Foster.....	9.00	14.00		
Violin:—				
Ross Spence.....	10.00	16.00	23.00	
Mandolin, Guitar, Banjo:—				
Ross Spence	9.00	12.00		
Pipe Organ:—				
Grace Martin Snee.....	12.00	20.00		
Wood and Brass Instruments:—				
Walter Mestrezat	8.00	12.00		
Ensemble Playing:—				
Ross Spence	12.00	20.00		

For two class lessons per week, of thirty minutes each, the tuition is:

In Harmony	$12.00
In Theory and Musical History.....	10.00
In Ear Training and Sight Reading....	6.00

Piano for practice one hour per day will be furnished at $3.50 per quarter; two hours per day, $6.00 per quarter; three hours per day $8.00 per quarter; four hours per day, $10.00 per quarter. Clavier practice, one hour per day, $3.00 per quarter.

Music Library.

A Music Library of over 3,000 copies of music has recently been added to the School. The best standard publications only are kept in stock, and such publications are added to the library as soon as placed on the market.

GENERAL ANNOUNCEMENTS.

A fee of $2.00 is charged each term for registration and the issuance of class cards. This fee is remitted to all students who procure class cards during the first three days of the fall quarter, and on the first day of the winter quarter, and the first day of the spring quar-

ter; and is exacted in all other cases whatsoever. Class officers will issue cards only on presentation of the ticket from the Registrar and Treasurer, and after the limit of the time above mentioned this ticket must bear the Treasurer's receipt for this fee.

Students may enter the School of Music at any time, but it is greatly to their interest to enter at the beginning of the quarter.

There will be no deduction for lessons missed by students, except in cases of prolonged illness.

Sheet music is furnished,—the best publications only,—at cost.

Students entering the School of Music within the first three weeks of a quarter will be charged for the full quarter; after that time, for the remainder of the quarter, and one week additional.

Students of the School of Music are not allowed to take part in public programs, or in musical organizations, without the consent of their respective teachers, and of the Director of the School of Music.

All music students are expected to attend the regular Students' Recitals, and to take part in them whenever so assigned.

All music students are expected to identify themselves with the various musical organizations of the school, and are required to enter any to which they are assigned by the Director of the School of Music.

Every music student is expected to attend all concerts given under the auspices of the University.

It is expected that all students will take sufficient work—literary or musical or both—to occupy their entire time.

All correspondence regarding this department should be addressed to

ROSS SPENCE,
Director of the School of Music,
Morgantown, West Virginia.

THE SCHOOL OF FINE ARTS

WILLIAM JACKSON LEONARD, Associate Professor and Head of the Department of Fine Arts.
MRS. EVA EMMA HUBBARD, Instructor in Drawing and Painting.

The University provides large, well lighted studios, containing drawing stands, easels, etc., and a large collection of casts and models. Students have access also to the University Museum for study, and to the University Library for works on the history and development of art.

The regular classes in Drawing and the History of Art are open without charge to all students of the University, but in the Crayon and Painting classes moderate fees are charged, as follows:

For One Quarter (Twelve Weeks), Three Lessons Weekly:

Special Drawing,	$ 5.00
Crayon,	5.00
Water-Color,	8.00
China Painting,	8.00
Pastel Painting,	10.00
Oil Painting,	10.00

Students whose work is entirely in this school and who take only private work are not required to pay the usual University fees, but are entitled to all the privileges of the other University students—Library, lectures, etc. Fees are payable in advance to the Treasurer of the University for the Art Fund.

THE REGULAR ART COURSE.

This course of four years is so planned that the student may acquire, not only the technique of drawing and painting, but also, a general art education and a degree of aesthetic culture tending to develop individual powers of composition and art of expression.

The work of the first year includes light and shade drawing from the antique, study of perspective, sketching from nature, drawings of still life, and study of form carried out in clay modeling. Color studies are introduced in the Spring term.

The second year continues the drawing from cast in charcoal and crayon, copying the head, mask and ornament from the antique. Color studies in water-colors and oil are given with the work in black and white.

During the third and fourth years, the student copies the bust and full length figure from the antique, paints from the draped model in the life class, and studies portrait painting and composition or sketching from nature and landscape painting.

REQUIREMENTS FOR DIPLOMA.

To those who complete this course of four years study, making oil painting their major study and including the history of Art, a diploma will be given.

THE NORMAL ART COURSE.

This course is designed for teachers in public or normal schools. It comprises free-hand drawing of ornament, mask, and head, from the antique; study of still life, perspective and mechanical drawing; sketching; study of design; study of color and form developed in water-color painting and clay modeling.

Class lectures are given on the teaching of form and color, and the history of art.

Students should spend two years in pursuing this course; but to suit individual needs, the course may be shortened, and what is most essential will be given in the time available.

COURSES OF INSTRUCTION.

Associate Professor Leonard.

1. **Elementary Drawing.** The historic forms of Art and their development. Lectures, with collateral reading and practice in drawing. Fall, 9:30; L.

2. **Elementary Drawing.** A continuation of course 1. Winter, 9:30; L.

3. **Elementary Drawing.** A continuation of course 2. Spring, 9:30; L.

4. **Advanced Drawing.** Historic periods of Architecture, Sculpture, and Painting. Lectures, with collateral reading and practice in drawing. Fall, 10:30; L.

5. **Advanced Drawing.** A continuation of course 4. Winter, 10:30; L.

6. **Advanced Drawing.** A continuation of course 5. Spring, 10:30; L.

7. **The History of Greek Art,** with a consideration of the arts of Egypt, Assyria and Phoenicia, in their relation to Greek art.
Fall, 8:30; L.

8. **The History of Mediaeval and Modern Art,** with special consideration of the Renaissance period. Winter, 8:30; L.

Courses 7 and 8 are not open to Freshmen.

Mrs. Hubbard.

9. **Perspective Drawing.** Elementary study of linear perspective. Principles studied and applied to the drawing of geometrical forms and familiar objects. Text-book, Honey's "Linear Perspective."
Fall, 11:30; L.

10. **Perspective Drawing.** A continuation of course 9. Analysis of principles. Development and construction of the arch. Minifie's and Spanton's "Perspective." Winter, 11:30; L.

11. **Advanced Perspective Drawing.** A continuation of course 10. Isometric drawing. Sciography. Perspective applied to buildings, use of plan and perspective erections. Applications to sketching and topography. Reference books: Spanton and Ware. Spring, 11:30; L.

12. **Oil Painting.** Color analysis and combinations. Painting from still life, fruits, flowers, draperies, etc. Landscape painting. Study of the draped model. Hours to be arranged. L.

13. **Pastel Painting.** The various studies of color and design suitable for expression in this medium. Special study for pastel portraits and the draped figures. Hours to be arranged. L.

14. **Water Color Painting.** Study from the flat and from nature, still life, landscape or model. Design from plant life and conventional. Figure and portrait painting. Hours to be arranged. L.

15. **China Painting.** Study of colors and combinations. Painting from the flat. Study of design of flowers, landscapes, etc., leading to original designs. China burned in the studio kilns.
Hours to be arranged. L.

16. **Designing.** Study of Ornament and principle of design. Lectures, collateral reading, and the drawing of designs.
Hours to be arranged. L.

THE SCHOOL OF MILITARY SCIENCE AND TACTICS

DANIEL BOARDMAN PURINTON, LL.D., President.

JAMES M. BURNS, Major U. S. Army, Commandant of Cadets and Professor of Military Science and Tactics.

Extracts from Militia Law, State of West Virginia, 1901, sec. 100. The Corps of Cadets of the West Virginia University shall be held as the Training School of the West Virginia National Guard, subject to such duty as the Commander-in-chief may order.

Jan. 19, 1903. "Each member of the Senate shall be entitled to appoint one cadet from his district, on or before the first day of June in the second year of his term, and one cadet on or before the first day of June in the fourth year of his term. Each member of the House of Delegates shall be entitled to appoint one cadet from his county on or before the first day of June next preceding the end of his term. In case a cadetship filled by appointment by any member of the Legislature shall become vacant, the member making the appointment, or his successor, shall fill the same by a new appointment within the limits of the time aforesaid. But no Senator or Delegate shall appoint any cadet until he receives a certificate from the President of the University, or the commandant of cadets, giving him notice of his right to do so; and he shall not have the right to exercise such power of appointment as long as two cadets are accredited to himself and his predecessor, either by original appointment or by re-enlistment. All other cadets necessary to make up the full complement of the corps shall be appointed by the regents, in proportion to their number, including vacancies, if any, caused by the failure of any member of the Legislature to fill his appointment. Cadets shall not be under sixteen years of age, and shall not be over twenty-one years of age. Their appointment shall be made upon undoubted evidence of good moral character and sound physical condition. Their term of enlistment shall be two years, but any cadet, at the expiration of his first term, shall be entitled to re-enlist for the further term of two years, upon giving notice of his intention to the commandant of cadets at least thirty days

before the expiration of such term. But not more than fifteen cadets shall be appointed from any Senatorial district, and not more than eight from any one county."

State cadets, to the number of 225, are appointed to the University, and receive their uniforms, books, stationery, tuition, use of library, use of arms and equipments, and ammunition for target practice free. No charge is made for their admission. They constitute the public guard of the University and of the public property belonging thereto. In order to receive an appointment as state cadet a candidate must be between sixteen and twenty-one years of age, and must furnish evidence of good moral character. Application for an appointment should be made to one of the Regents of the University or to a member of the Legislature.

Students of the University who desire military instruction, and who are not state cadets, are allowed to join the corps as volunteer cadets. They receive no uniform from the state.

All cadets are required to wear a neat-appearing gray uniform at drill. This uniform may be worn with propriety on all occasions.

Officers of the regular army are specially detailed by the President of the United States, one to act as Commandant of Cadets, and one to make an annual inspection of the Corps.

SPECIAL REWARDS FOR MILITARY EXCELLENCE.

The names of the three most distinguished cadets are published annually in the official U. S. Army Register, and it is possible that one cadet may be appointed each year as a lieutenant in the United States army.

Gold and silver medals are awarded annually to cadets for special excellence.

Cadets who are recommended for promotion after graduation are entitled to commissions as officers, signed by the Governor of the State, and such commission entitles them to rank with other officers of the National Guard of West Virginia, according to grade and date of commission.

ARMORY.

The new Armory (60 by 120 feet) has been completed and in future will be used as a drill hall during inclement weather. This beautiful building will be the home of the Cadet Corps, and all entertainments given by them will be held therein, under the supervision of the Commandant of Cadets.

ADMINISTRATION AND INSTRUCTION.

For the purpose of administration and drill the Corps of Cadets is organized as an infantry battalion. There is also an artillery detachment. Infractions of discipline are referred to a court-martial, consisting of cadet officers, for investigation. Cadets are divided into sections corresponding to their military proficiency and length of service. New cadets are required to enter the fourth (lowest) section, but those who have had previous military instruction may be transferred to a higher section upon passing a satisfactory examination.

The course of military instruction, practical and theoretical, is intended to fit all who graduate therein to perform efficiently the duties of officers in the National Guard of West Virginia. In addition to this, all cadets are taught that patriotism, punctuality, obedience, attention, alertness, and neatness are at all times expected of them. It is believed that the training a cadet receives fits him to become a good citizen as well as a good soldier. The qualities which go toward making the good officer are no less valuable, when considered in connection with the business man, professional man, or farmer. They are the qualities which ordinarily insure success in every walk of life. The excellent physical results which follow systematic military drill are well known and acknowledged by all competent judges.

The work in the military department requires about five hours each week. The winter term is devoted to physical training and recitations in tactics and other military subjects. The military course is the same as that of the West Point Military Academy, and when a cadet graduates he is qualified to pass an examination for a commission in the United States Army. This work is taken in connection with other University work.

PHYSICAL TRAINING.

Beginning with the winter quarter a regulation suit will be required. This suit will consist of Turner pants, blue knit sleeveless shirt or jersey, and shoes with rubber or buck soles.

The regular course in physical training occupies four years, and is required of all young men in the Preparatory School, and of all members of the Cadet Corps. Cadets may be excused by the Commandant for sufficient reasons.

COURSE OF INSTRUCTION.

The instruction of the various sections is as follows:

Fourth Section.

Practical Instruction: (a) Infantry drills in school of the soldier squad, company, and battalion; extended order and ceremonies. (b) Guard duty as a sentinel. (c) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 1 to 248, and 502 to 601, inclusive. (b) The Manual of Guard Duty except paragraphs 331 to 373, inclusive. (c) The explanation of Cadet Regulations and General Orders, and the care of arms and accoutrement.

Third Section.

Practical Instruction: (a) Infantry drills, same as fourth section, except in school of soldiers. (b) Artillery dismounted battery and saber drills. (c) Guard duty as sentinels and non-commissioned officers. (d) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 249 to 367, 602 to 620, and 663 to 769, inclusive. (b) U. S. "Artillery Tactics," paragraphs 341 to 460, inclusive.

Second Section.

Practical Instruction: (a) Infantry drills same as third section. (b) Military signaling. (c) Small-arms firing, including the preparation of ammunition, position, and aiming drills, gallery practice, and range firing. (d) Guard duty same as third section.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 368 to 499, and 621 to 662, inclusive. (b) Military signaling. (c) Small-arms Firing Regulations. (d) United States Army Regulations.

First Section.

Practical Instruction: (a) Infantry duties of grade attained. (b) Guard duty of grade attained. (c) Court-martial. (d) Fencing.

Theoretical Instruction: (a) Minor tactics, including advance and rear guards, outposts, marches, field fortifications, riot duty, etc. (b) Military Law.

BAND.

A band of twenty-six musicians has been authorized by the Board of Regents. They are entitled to the rights and privileges of State Cadets and are governed by the same rules and regulations. They receive free of charge, tuition, uniforms, books, stationery, and instruction in band music. Mr. Walter Mestrezat is the leader of the band and gives five hours' instruction per week.

INFORMATION FOR APPLICANTS FOR APPOINTMENT TO THE CADET CORPS.

1. The applicant must not be under sixteen nor over twenty-one years of age.

2. He must be a bona fide resident of West Virginia.

3. He must be sound physically, of good moral character, and able to pursue successfully, at least, the studies of the first year of the Preparatory School.

4. He must make a deposit of $20.00 with the treasurer of the University as a guaranty that the state arms, etc., in his possession will be taken care of. The deposit will be returned to him at the end of his enlistment of two years, upon satisfactory settlement with the quartermaster.

5. He must make an average grade each term of not less than sixty on a scale of one hundred in order to hold his appointment.

6. Cadets are furnished with uniforms, text-books, and stationery free of charge. They pay no matriculation, tuition, or contingent fees to the University. If they are graduated from any department of the University while members of the Cadet Corps they are allowed to retain their text-books.

7. The work of the corps does not interfere with the student's scholastic duties. Cadets may take courses in any of the departments of the University.

8. A young man desiring an appointment should apply to the Regent for his county or to a member of the Legislature representing his county. The counties of the State are divided as follows by the Board of Regents for the purpose of cadet appointments:

Regent L. J. Williams, Lewisburg, W. Va.—Mercer, Raleigh, Wyoming, McDowell, Mingo, Greenbrier, Summers, Pocahontas.

Regent C. E. Haworth, Huntington, W. Va.—Cabell, Wayne, Lincoln, Logan, Boone, Putnam, Mason.

Regent C. M. Babb, Falls, W. Va.—Berkeley, Morgan, Hampshire, Harden, Mineral, Grant, Jefferson.

Regent D. C. Gallaher, Charleston, W. Va.—Kanawha, Fayette, Nicholas, Clay, Roane, Monroe.

Regent F. P. McNell, Wheeling, W. Va.—Hancock, Brooke, Ohio, Marshall, Marion.

Regent J. R. Trotter, Buckhannon, W. Va.—Webster, Braxton, Randolph, Lewis, Upshur, Tucker.

Regent T. P. Jacobs, New Martinsville, W. Va.—Wetzel, Tyler, Harrison, Pleasants, Ritchie.

Regent J. B. Finley, Parkersburg, W. Va.—Doddridge, Gilmer, Wirt, Wood, Jackson, Calhoun.

Regent E. M. Grant, Morgantown, W. Va.—Taylor, Preston, Monongalia, Barbour, Pendleton.

MILITARY GRADUATES AND DISTINGUISHED CADETS

Reported at Commencement, June, 1904.

The following are the distinguished Cadet graduates from the University whose names will appear in the United States Army Register for 1905:

Cadet E. U. Richards;
Cadet W. E. Scott;
Cadet S. G. Moore.

The following are announced as Distinguished Cadets, as provided by Par. 83, Cadet Regulations:

First Section.

Cadet First Lieutenant John T. West, Co. "C."
Cadet First Lieutenant R. G. Millan, Quartermaster.
Cadet Second Lieutenant Jesse T. Dunbar, Co. "C."

Second Section.

Cadet First Sergeant F. C. Colcord, Co. "B."
Cadet Sergeant Arthur Hall, Co. "A."
Cadet Second Lieutenant J. D. Gibson, Co. "B."

Third Section.

Cadet Corporal H. C. Batten, Co. "B."
Cadet Corporal C. E. Tracy, Co. "A."
Cadet Corporal W. E. Lloyd, Co. "A."

Fourth Section.

Cadet Private S. G. Jackson, Co. "D."
Cadet Private H. W. Lawson, Co. "C."
Cadet Private C. C. Sheppard, Co. "C."

The following named cadets, having completed the course of instruction, are announced as graduates of the Department of Military Science and Tactics:

J. T. West	H. M. Schrader	C. T. Pearcy
J. T. Dunbar	W. T. Brown	W. E. Scott
D. P. Miller	R. G. Millan	P. W. McMillan
	C. M. Bennett	

Upon decision of the Board of Judges the Cadet Colors for the ensuing year are awarded to Co. "D."

The medals offered by the Board of Regents are awarded as follows:

(1) Gold Medal for Drill and Discipline, to Cadet Sergeant Joseph W. Lyon, Co. "C."

(2) Silver Medal for the highest score at Target Practice, to Cadet Sergeant Arthur Hall, Co. "A."

(3) Silver Medal for second highest score at Target Practice to Cadet Sergeant J. Burns Huyett, Co. "C."

FIELD AND STAFF.

Commandant,	J. M. Burns, Major, U. S. A.
Cadet Major,	Chas. A. Ellison.
Cadet Captain,	Harry Friedman, Artillery Officer.
Cadet First Lieutenant,	C. S. McNeil, Adjutant.
Cadet First Lieutenant,	E. L. Dudley, Quartermaster.
Cadet First Lieutenant,	James D. Gibson, Signal Officer.

Non Commissioned Staff.

Cadet William C. Gist,	Sergeant Major.
Cadet John C. App,	Chief Trumpeter.
Cadet George W. Brown,	Quartermaster Sergeant.
Cadet Chas. B. Lingamfelter,	Ordnance Sergeant.

BAND.

Walter Mestrezat,	Leader and Instructor.
Cadet C. S. Carney,	Drum Major, Captain.
Cadet R. C. Crago,	First Lieutenant.
Cadet H. M. Schrader,	First Lieutenant.
Cadet W. C. Moser,	Sergeant.
Cadet W. J. Ruble,	Sergeant.
Cadet C. W. Conn,	Corporal.
Cadet C. L. Crow,	Corporal.

Privates.

Cadet H. Becker,	Cadet Tom Ramage,	Cadet A. B. Fancher,
Cadet C. E. Bruce,	Cadet F. E. Watson,	Cadet J. A. Hairslip,
Cadet H. M. Earnst,	Cadet R. F. Thaw,	Cadet R. A. Priest,
Cadet M. A. Fluharty,	Cadet A. D. Bell,	Cadet F. F. Staubly,
Cadet R. B. Wilkinson,	Cadet H. F. Compton,	Cadet C. Hinman.

COMPANY "A."

Captain,	Dana P. Miller.
First Lieutenant,	E. A. Peabody.
Second Lieutenant,	F. C. Colcord.
First Sergeant,	Arthur Hall.

Sergeants.

C. C. Holland,	H. W. Sanders,
W. E. Lloyd,	S. W. Jackson.

Corporals.

H. W. Lawson,	L. A. Carr,	W. E. Paul.

Privates.

F. L. Boydston,	M. E. Hays,	C. J. Thompson,
C. S. Burns,	J. P. McJilton,	S. A. Waller,
D. H. Estill,	John McMorrow,	C. H. Wetzel,
E. F. Fox,	S. S. Shirkey,	J. H. Wick,
O. L. Hall,	E. P. Smith,	Felix Yanosky,
W. G. Hall,	J. H. Steenberger,	L. C. Yeardley.

COMPANY "B."

Captain,	C. M. Bennett.
First Lieutenant,	P. W. McMillan.
Second Lieutenant,	J. W. Lyons.
First Sergeant,	E. H. Barnhart.

Sergeants.

H. C. Batten,	G. W. Price,
C C. Sheppard,	F. L. Shinn.

Corporals.

L. W. Ryan, J. A. Yonker, J. R. Tuckwiller.

Privates.

D. L. Carden,	B. W. King,	C. L. Shull,
R. B. Crawford,	B. F. McGinnis,	F. H. Sisler,
G. A. Hall,	C. Myers,	W. C. Stannard,
Frank Hall,	C. B. Ross,	J. L. Walton,
J. A. Hanna,	W. Sammonds,	E. Wilkinson.
W. S. Heltzen.	W. C. Sapp,	F. C. Yeager.

Musician.

R. K. McNeill.

COMPANY "C."

Captain,	R. G. Millan.
First Lieutenant,	J. D. Gibson.
Second Lieutenant,	C. E. Wells.
First Sergeant,	L. D. Saunders.

Sergeants.

R. L. Cole, A. C. Weaver, J. C. Keister.

Corporals.

J. W. Anderson, G. A. Collier, Fred Vandale.

Privates.

Arthur Arnold,	V. S. Hayworth,	P. E. Porterfield,
C. E. Cummins,	E. N. Hinerman,	Robert M. Steele,
Robert L. Drane,	George D. Johnson,	Victor H. Stewart,
John Dyer,	Carlisle McCormick,	William R. Thatcher
Chas. V. Feller,	Ira F. Nestor,	Joseph C. Vance,
James S. Fravel.	Lyle D. Ollsen,	Randall C. Ward.
Roy O. Hall,		

COMPANY "D."

Captain,	J. T. West.
First Lieutenant,	E. C. Colcord.
Second Lieutenant,	M. W. McDonald.
First Sergeant,	A. H. Foreman.

Sergeants.

R. W. Dunham,	G. S. Dent,
T. B. Foulk,	F. W. Tuckwiller.

Corporals.

E. Gregg, C. J. Smith, H. M. Scott.

Privates.

C. Bowman,	J. S. Lantz,	C. Rogers,
W. E. Cathers,	C. E. Leavitt,	M. Rust,
John Coda,	P. J. Mahone,	J. C. Southern,
G. C. Corbin,	S. D. McCrum,	J. G. Toothman,
W. W. Ingram,	H. A. Reynolds,	John Wyatt.

Musician.

Cleveland M. Seibert.

THE COMMERCIAL SCHOOL

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.
DENNIS MARTIN WILLIS, LL.B., Principal.
ELIZABETH LEE WHITESCARVER, Instructor in Shorthand and Typewriting.

Other Instructors Giving Courses in This School.

P. B. REYNOLDS, Ph. D., Professor of Economics and Sociology.
THOMAS CLARK ATKESON, Ph.D., Dean of the College of Agriculture and Professor of Agriculture.
WILLIAM P. WILLEY, A.M., Professor of Commercial Law.
SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.
JAMES MORTON CALLAHAN, Ph.D., Professor of History and Political Science.
WILLIAM JACKSON LEONARD, Associate Professor of Fine Arts.
SIMEON CONANT SMITH, A.M., Assistant in English.
DAVID DALE JOHNSON, A.M., Assistant in English.

THE COMMERCIAL SCHOOL.

This school was established in 1895, the object being to prepare young men and women for practical business life, and to give to students in other departments of the University an opportunity to study the subjects taught in the school. Students in the College of Arts and Sciences, the College of Law, and the other departments of the University, may take any of the work outlined in the Commercial School without additional fees.

The instruction in the Commercial course is given in connection with the work done by the professors in the other departments of the University, the curriculum being articulated with the other courses .

Students are permitted to make arrangements by which they can take special courses in Bookkeeping, Shorthand and Typewriting, thus preparing themselves to act as secretaries, amanuenses, assistants in business offices, court reporters, etc. The special advantages include a

thorough course in English and an acquaintance with the routine work and technicalities of business.

A certificate will be granted to students who complete the courses and pass the required examinations and tests.

FEES.

Tuition is free to West Virginia students. To students from other States, the tuition in the Commercial School is $5.00 per quarter—twelve weeks.

The matriculation fee is $5.00, payable by all students upon entering the University. Unless a student remains out of the school for more than three years the matriculation fee is paid but once by each student.

The contingent fee of $3.00 for each quarter, is payable at the beginning of the quarter.

A typewriter fee of $1.00, payable at the beginning of each quarter, is charged each student for the use of the typewriter during the quarter.

The total University charge during the first quarter for students from West Virginia in the Commercial School amounts to $8.00, and each succeeding quarter $3.00. State cadets are furnished with books, stationery, and uniforms, free, and are not required to pay any fees.

REQUIREMENTS FOR ADMISSION.

The requirements for admission are as follows:

1. **History** ..... 2 courses.
   (a) General History,—Myers, or an equivalent.
   (b) United States History.—Fiske, or an equivalent.
2. **English** ..... 3 courses.
   (a) Spelling, punctuation and paragraphing.
   (b) English Grammar completed, with ability to write good English.
   (c) Reed & Kellogg's Grammar completed, or an equivalent.
3. **Mathematics** ..... 2 courses.
   (a) Arithmetic completed,—Greenleaf's, or an equivalent.
   (b) Algebra,—Milne's "High School Algebra," or an equivalent.
4. **Elementary Science** ..... 2 courses.
   (a) Physical Geography.
   (b) Human Anatomy and Physiology.
5. **Civil Government** ..... 1 course.
   Fiske's, or an equivalent.

Requirements for the Two Years Commercial Course.

English,	6 courses;
Commercial Geography,	½ course;
Economics,	3 courses;
Freehand Drawing,	1 course;
Bookkeeping,	2 courses;
Commercial Law,	3 courses;
Bank Accounting,	1 course;
History of Commerce,	½ course;
Geology,	2 courses;
Political Science,	3 courses;
	22 courses.

DEPARTMENTS OF INSTRUCTION

The studies that are taught in this department are the only courses described here. See the announcements of the Preparatory School and the College of Arts and Sciences for a description of the culture courses.

BOOKKEEPING.

Mr. Willis.

1. Business Practice. This is an introductory course consisting of business practice and extensive drills in the use of vouchers, files, and in journalizing, posting, etc. In this course the student familiarizes himself with all the elementary rules and fundamental principles of bookkeeping. The student, in doing this work, is engaged as a bill clerk, shipping clerk, warehouseman, secretary, and bookkeeper for a firm doing a merchandising business.

Text-book, "Office Routine and Bookkeeping." Prerequisites, Penmanship, Commercial Arithmetic, or an equivalent.

Fall, Winter, and Spring, 8:30; 12 M.

2. Office Work and Accounting. This course is a continuation of course 1, the student becoming a member of the firm, and general manager and bookkeeper. There are frequent drills in making inventories of the property and resources and liabilities, financial statements, balances and balance sheets, etc. The student is required to write all articles of agreement, deeds, mortgages, bills of sale, etc. The adjustment of losses and the settlements with insurance companies after a fire is a special feature of this course. Changing the firm and the kind of business, etc., and changing from double to single entry bookkeeping. Text-book, "Office Routine and Bookkeeping."

Fall, Winter, and Spring, 9:30; 12 M.

3. Special Accounting. A theoretical course in keeping the ac counts in special lines of business, as lumber shipments and consignments, jobbing, installments, department store accounts, corporation voucher accounting, etc. This is an advanced course which is not required in the regular Commercial Course. Text-book, "Advanced Bookkeeping," Williams and Rogers and Marshall's "Corporation Accounting." Prerequisites, Bookkeeping 1 and 2.

Winter and Spring, 10:30; 12 M.

4. Banking and Bank Accounting. A complete course in bank accounting and practice, consisting of working in the bank as teller, bookkeeper, etc.; and the theoretical work as outlined in the text. This is the system that is universally used in the banks of this country and approved by the National Bankers' Association. "Modern Illustrative Banking" and "Money Banking and Finance"—Balles. Prerequisites, Bookkeeping, 1 and 2. Fall, Winter and Spring, 8:30; 12 M.

SHORTHAND.

Mr. Willis and Miss Whitescarver.

1. Theory. This course includes the basis and fundamental principles of the art. Special attention is given to accuracy in the execution of the consonants. Thorough drills are given in the use of vowels and vowel positions. Introduction of word signs and special phrasing from day to day, and cumulative principles, modifications of consonants and affixes, as outlined in Dement's "Pitmanic Shorthand." Prerequisite, English 3. Fall, 8:30; Winter. 9:30; Spring, 10:30; 30 M.

2. Cumulative Phrasing. This course is a continuation of course 1. Cumulative principles and affixes are introduced in their natural order. Following this, cumulative phrasing, which consists in the indication of the omission of words by special use of the principles given in course 1. Special contractions and special phrasing, etc. This work will be presented in the order in Dement's "Pitmanic Shorthand." Fall, 10:30; Winter, 8:30; Spring, 9:30; 30 M.

3. Speed Practice and General Dictation. Letter writing, speed practice, and writing after general dictation. Writing testimony and argument is a special feature in this course. Special attention is given to each student in this course in order to prevent speed practice from destroying accuracy of notes, etc. Most of the dictation and reading exercises are to be found in Dement's "Dictators," Nos. 1 to 7. Fall, 9:30; Winter, 10:30; Spring, 8:30; 30 M.

4. Court Reporting. This is a special course in court reporting for students who have completed courses 1, 2, and 3. This work is given in connection with the moots courts in the College of Law. The student is appointed court stenographer by the judges of the court, and reports the case tried in that court and in the justices' court of the same department. Duplicate reports are submitted for inspection. This gives the student actual practice in court reporting, as required by the West Virginia law. In addition to this actual practice, daily drills are given to acquire speed in writing and transcribing testimony, etc. Brown's "Court Reporting" is used as a text-book. Winter and Spring.

PENMANSHIP.

Mr. Willis.

1. **Penmanship.** This is a course of plain business writing. Students are required to eliminate all unnecessary flourishes and to reduce their writing to a rapid, plain, and abbreviated style of penmanship. They are permitted to use either the vertical or slant writing. The modern and improved methods of instruction are used, with "Plain Writing" by Zaner, as a guide. Fall and Winter; 12 M.

TYPEWRITING.

Miss Whitescarver.

1. **Typewriting.** The "Smith Premier" machine is used for instruction and practice. The instruction includes thorough drills on the various exercises outlined in the text. This furnishes the student with a knowledge of the mechanism of the machine, which is essential in its adjustment. Text-book, Barnes' "Touch Typewriting."

Fall, Winter, Spring, 8:30 A. M. till 4 P. M.

COMMERCIAL LAW.

Professor Willey.

1. **Contracts.** The object of this course is to group, set in order, and illustrate the entire elementary doctrine of the law of contracts in such a manner as to render obvious their application in practice. This course is given by lectures, with assigned readings from a prescribed text book, and law reports. Fall, 9:30; 14 W.

2. **Negotiable Paper.** This course deals with the law of negotiable paper, beginning with the origin of negotiability, and showing the mode and practice of Law Merchant, and the effect the various statutes have had upon them. The mode of instruction is by lectures and by assigned cases to be read as authority. Half course. Winter, 9:30; 14 W.

3. **Bailments and Suretyship.** The work in the course embraces the law of bailments, the law of guaranty and suretyship and the law of insurance. Instruction is given by lectures, quizzes and assigned readings. Half course. Winter, 9:30; 14 W.

4. **Sales and Partnership.** Half course each. Sales, first six weeks, and Partnership the last six weeks. Spring, 9:30; 14 W.

COMMERCIAL GEOGRAPHY AND HISTORY.

Professor Atkeson.

1. **Commercial Geography.** A description of the surface of the earth, with special reference to the production, manufacture, transportation, and exchange of articles of trade. A general outline of the coun-

tries of the world: soil, climate, agricultural products, forests, manufactories, quarries, mines, centers of industry, foreign relations, ways of communication, social relations and conditions, imports, exports, and markets. Special attention is given to the study of the United States: area, climate, position, population, natural resources, raw products, manufactures, waterways, railways, seaports, exports, imports, reasons for rapid growth of Western cities, industrial possibilities. Text-book, Adams' "Commercial Geography."

Half course| Fall, 10:30; Winter, 11:30; 22 W.

2. **History of Commerce.** History of commerce; methods of exchange in ancient times; shipping of the ancients; fairs and markets; results of maritime discoveries; changing the commercial routes; international treaties affecting commerce; scientific and industrial discoveries affecting commerce; trade restrictions; consuls and modern commerce; boards of trade; stock and produce exchanges; modern modes of preparing and shipping articles of merchandise; circulation of commodities between cities and countries; trade statistics; dependence of manufactures upon producers of raw material; nomenclature of commerce. Text-book, Adams' "History of Commerce."

Fall, 10:30; Winter, 11:30; 22 W.

THE SUMMER SCHOOL

JUNE 19 TO JULY 29.

THE FACULTY.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President of the University.

CHARLES ALEXANDER M'MURRY, Ph. D., (Principal Practice Department, Northern Illinois Normal School, and Educational Author), Education.

EDWARD EVERETT HALE, JR., Ph. D., (Professor of English in Union College), English Literature.

RICHARD GAUSE BOONE, Ph. D., (Editor of "Education," and late Superintendent Cincinnati Public Schools), Education.

NATHANIEL BUTLER, LL. D., (Professor in the University of Chicago), Literature, and Education.

SARAH E. GRISWOLD (Professor of the Science and Art of Instruction in the Chicago Normal School), Primary Department; Observation Classes; Handicraft.

MARGARET K. SMITH, Ph. D., (Professor of Psychology and Geography in the New York State Normal School, New Paltz on the Hudson), Geography and Physiography; Psychology.

JOHN PORTER LAWRENCE (Director of Piano Department National Park Seminary, Washington, D. C., Piano and Organ.

ANTON KASPAR (Concert Master of Georgetown Orchestra, Washington, D. C.), Violin.

MARY ARLINE ZURHORST (Principal National Cooking School, Washington, D. C.), Domestic Science.

MARY KETCHAM, Litt. B., (Syracuse University), Design and Basketry.

JASPER NEWTON DEAHL, A. M., Education.

JOHN LEWIS SHELDON, Ph. D., Nature Study.

JAMES MORTON CALLAHAN, Ph. D., History.

FREDERICK WILLIAM TRUSCOTT, Ph. D., German.

ROBERT ALLEN ARMSTRONG, A. M., English Literature.

ALFRED JARRETT HARE, A. M., Latin.

JAMES SCOTT STEWART, M. S., Mathematics.

FREDERICK LAWRENCE KORTRIGHT, D. S., Chemistry.

WAITMAN BARBE, Litt. D., English Literature.

CHARLES HENRY PATTERSON, A. M., Rhetoric.

EVA E. HUBBARD, Public School Drawing, and the Fine Arts.

ST. GEORGE TUCKER BROOKE, LL. D., Law.

EDWIN MAXEY, LL. D., Law.

ROSS SPENCE, Director School of Music.

ALEXANDER STEWART THOMPSON, Voice.

SUSAN MAXWELL MOORE, Piano.

PAULINE G. WIGGIN, A. M., Librarian; Library Science.

SUNDAY SCHOOL METHODS FACULTY.
JUNE 26 TO JULY 2.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President of the University.

REV. HOWARD M. HAMILL, A. M., D. D., Superintendent Training Work, M. E. Church South, Nashville, Tennessee.

REV. CHARLES ROADS, D. D., General Field Worker, Methodist Episcopal Church, New York.

W. C. PEARCE, Teacher Training Secretary, International Sunday School Association, Chicago, Illinois.

SARAH E. GRISWOLD, Model Teacher and Primary Superintendent, Chicago, Illinois.

MARGARET K. SMITH, Ph. D., Professor of Psychology in New York State Normal School, New Paltz, New York.

J. N. DEAHL, A. M., Professor of Education, West Virginia University.

W. C. SHAFER, General Secretary West Virginia Sunday School Association.

REV. L. E. PETERS, District Secretary American Baptist Publication Society.

REV. C. HUMBLE, M. D., Superintendent Presbyterian Sunday School Missions for Kentucky, Tennessee, and West Virginia.

MARTHA GRAHAM, Superintendent Primary Department West Virginia Sunday School Association.

ROBERT ARMSTRONG, A. M.

J. M. CALLAHAN, Ph. D.

THOMAS E. HODGES, A. M.

NOTES ON THE FACULTY.

Dr. McMurry is one of America's best known educators. He is a Doctor of Philosophy of Halle; has taught in Illinois, Colorado, and Minnesota; principal practice department Northern Illinois Normal School; institute and summer school worker in many States, and author of many books in methods of teaching various subjects. He is an eminent expert in the most improved methods of teaching.

Dr. Boone, as professor of pedagogy in the University of Indiana; president of the Michigian Normal College at Ypsilanti; superintendent of the Cincinnati Public Schools; educational lecturer and author, is well known to school men all over the country.

Dr. Hale was educated at Harvard and Halle; was assistant professor of English in Cornell University; professor of English in the University of Iowa; and is now professor of English in Union College. He is the editor of various school and college texts, and is

the author of "Modern Dramatists" and "Constructive Rhetoric." He is a distinguished scholar and teacher.

Dr. Butler is professor of education in the University of Chicago. He was formerly president of Colby College and has filled various other positions of eminence.

Miss Griswold is perhaps the most widely known model and observation teacher in the country. Her great work in the Chicago Normal School with the late Col. Francis W. Parker, and more recently with Dr. Arnold Tompkins, is felt in all grades of the Chicago public schools. She began as a country school teacher, and her wide acquaintance with the needs of teachers in both country and town in many states, enables her to make her work exceptionally practical.

Margaret K. Smith, Ph. D., was for a number of years a member of the faculty of the Oswego Normal School and at present holds a chair in the State Normal School at New Paltz, New York. She was an Honorary Fellow at Clark University and has her Doctor of Philosophy degree from the University of Zurich. Her study and teaching have been given mainly to two subjects, viz., psychology and geography, and all through the east she is known as a great teacher of these subjects.

Miss Ketcham is instructor in design in the College of Fine Arts in Syracuse University, where she has done work of a distinctly high character. Her preparation has been the best that the country affords. Her work in design for stained glass effects, rug sketches, damask patterns, stencils, etc., has attracted much attention.

Miss Zurhorst is principal of the National Cooking School at Washington, D. C.; pupil of the New England Cooking School; of Mrs. Janet McK. Hill of Boston, and of the late Mrs. Gesine Lemcke of New York. Miss Zurhorst's school is affiliated with the best young ladies' seminaries in Washington.

Mr. Lawrence and Mr. Kaspar are known by all musicians to be the leaders in Washington City musical life. Mr. Lawrence is director of the piano department of the National Park Seminary, and Mr. Kaspar is concert master of the Georgetown Orchestra.

Dr. Hamill is an international lecturer on Sunday School topics; has been for years connected with the Sunday School work of his denomination in the South, and is well known among the progressive Sunday School workers of the country.

Dr. Roads is the chief field worker for the Sunday Schools of the M. E. Church of America. He has done efficient work in many states of the Union.

Mr. Pearce was for some time connected with the State Sunday School work of Illinois; then with the Chicago city work, and is now the field worker for the International Sunday School Association. He has had large and successful experience and is widely sought.

All of the other Summer School instructors are regular members of the University faculty; and the other instructors in the School of Methods for Sunday School Workers are well known West Virginia Sunday School officials.

ANNOUNCEMENTS FOR THE SUMMER SCHOOL 1905.

The Summer School for 1905 will begin June 19 and continue six weeks—until July 29. Students may enter at any time, but they are earnestly advised to be present from the beginning of the school. The Summer School, like any other term of the University, is co-educational in all its courses.

Admission for Credit.

There are no requirements for admission to the Summer School unless the student desires University credit for the work to be done. In such case if he desires to be a special student he must satisfy his instructors that he is prepared to take the courses selected. If he desires regular classification he must meet the regular University conditions, a statement of which may be found in the University catalogue.

Credit towards a college degree may be had for Summer School work.

Certificates setting forth the work done in the Summer School will be given to those desiring them.

Credit for Lectures.

The afternoon lectures of Dr. Butler, Dr. Hale, Dr. McMurray, Dr. Boone and Dr. Barbe will constitute a continuous course. Students taking all of them and passing such examinations as may be set will receive credit for a half course.

Registration.

Students will register on Monday, June 19, with the Registrar, Room 11, Science Hall. All students whether previously in attendance at the University or not, must register before entering the Summer School.

Work will begin promptly in all departments on Tuesday, June 20.

Fees for the Summer School.

The entire fee for everything offered in the Summer School (excepting law, music, domestic science, and the fine arts), is $2.50, whether the student be a resident of West Virginia or of some other state; provided, that University credit for summer work is not desired. If University credit for the work is desired, a matriculation fee of $5.00 must be paid, unless the student is already a matriculate of the University.

Students from states other than West Virginia who desire to obtain University credit for the summer work will also pay the following tuition: In the College of Arts and Sciences, $6.00; in the Preparatory School, $2.50.

If, however, no University credit is desired, the total fee for students from other states as well as from West Virginia will be only $2.50.

In the College of Law five courses will be offered, and a fee of $10.00 will be charged; but Law students will not be required to pay any other fee, no matter what their residence may be.

The fees in Music, the Fine Arts, Design, and Cooking are stated in the announcements of the courses in those subjects.

The Library and Laboratories.

The library is open without break from 7:45 A. M. to 10:00 P. M. every day except Sunday, and on Sunday it is open for reading and the consultation of books from 2:00 P. M. to 5:00 P. M. No books are given out on Sunday. It is earnestly hoped that the students who attend the Summer School will avail themselves of the opportunity to spend as much time as possible in this department.

Students are allowed free access to the library shelves; and it is the effort of those in charge to render every possible service to aid students in making profitable use of the books.

The reading room is well supplied with the current periodicals and newspapers—both technical and general—which are free of access to all who wish to make use of them.

Free Music Recitals and Matin Service.

Six lecture recitals, under the direction of the School of Music, will be given—one each week. Great composers will be briefly discussed and their works interpreted with voice, piano, violin or organ by Mr. Lawrence, Mr. Kaspar and Mr. Thompson. These recitals, given every summer, constitute one of the most enjoyable features of the Summer School.

A brief chapel service will precede these music recitals. They will be held every Wednesday at 11 o'clock in Commencement Hall. During that hour no other exercises will be held in any department of the Summer School. These weekly music recitals will be considered as a continuation of the matin service, and will be free to students and the public.

Living Accommodations.

The Woman's Hall will be open as usual during the Summer School, with Miss Susan Maxwell Moore, Dean of Women, in charge. The Hall, with its annex, furnishes excellent accommodations for about thirty-five young ladies.

The Y. W. C. A. House will accommodate about fifteen young women. It is conducted on the co-operative plan, and the actual cost of living, including room rent, board, fires, lights, etc., ranges from $2.25 to $3.25 a week, the lower rates being for those who receive some of their supplies from home. There are two kitchens, two dining rooms, and a laundry in the house. The young women may do their own washing if they desire.

The Episcopal Hall, founded a number of years ago by Bishop Geo. W. Peterkin, of the Protestant Episcopal Church, is open during the summer and accommodates about fifty persons, of either sex. Information may be had by writing to Episcopal Hall, Morgantown.

Other Places. There are a great number of desirable rooming and boarding places in the town which are open during the summer at reasonable rates. The two Christian Associations of the University have charge of the work of helping students to find suitable living accommodations. Young women who do not desire to board at any of the halls mentioned above should write to Miss Crystal Courtney, Morgantown, for information about living accommodations in the town; and young men should write to Mr. C. T. Boggess, Morgantown. Committees of these associations will gladly meet students at the railway stations or at the wharf and conduct them to their rooms.

Educational Conference.

The third annual two-days Educational Conference, under the auspices of the University Summer School, will be held Friday and Saturday, July 14 and 15, in Commencement Hall. The topic this year will be "The High School Problem in West Virginia." All persons interested in this topic are cordially invited to be present and take part in the discussions. These educational conferences have proved to be of great importance in their relation to West Virginia educational questions.

Summer School Convocation.

The Convocation exercises of the Summer School will be held Monday evening, June 19, at 8:30 o'clock, in Commencement Hall. The Convocation address will be delivered by Professor Nathaniel Butler, LL. D., of the University of Chicago. Music will be furnished by the School of Music.

Further Information.

For further information concerning any department of the Summer School or for a catalogue of the University, write to

D. B. PURINTON, Ph.D., LL.D.,
Morgantown, W. Va.

DEPARTMENTS OF INSTRUCTION

All courses extend throughout the entire six weeks unless otherwise stated.

The abbreviations are: M., Martin Hall; W., Woodburn Hall; S., Science Hall; L., Library; C., Commencement Hall; A., Agricultural Experiment Station.

EDUCATION.

Nathaniel Butler.

During the first week of the Summer School, beginning June 19, Nathaniel Butler, A.M., LL.D., Professor of Education in the University of Chicago, and formerly President of Colby University, Maine, will give a series of ten lectures. Five of them will be upon Education and five upon Literature. The subjects of the five upon Education ar as follows:

I. Some Present Day Ideals.
II. Some Present Day Ideals (second lecture).
III. Secondary Education.
IV. The Teaching of Latin in Secondary Schools.
V. Sending Boys and Girls to College.

June 19 to June 24; 14 M.

Charles A. McMurry.

During the week beginning July 3, Charles A. McMurry, Ph.D., of Illonois, educational writer and principal practice department Northern Illinois Normal School, will give a series of lectures as follows:

I. The Course of Study in Common Schools—How to Simplify and Organize It.
II. The Relation of Studies to One Another in the Common School Course.
III. The History of the United States for American Children.
IV. Selection of Chief Topics in History.
V. Arithmetic as Applied to Life.
VI. Importance of Language in the School Course.
VII. The Training of the Teacher.
VIII. Harmonizing Contradicting Ideas in Education.

July 3 to 8, 3:00; 14 M.

Three evening lectures.

At 9:00 A. M. every day during that week Dr. McMurry will meet Professor Deahl's classes in "The Recitation and Methods of Teaching" in the capacity of critic teacher.

Richard Gause Boone.

During the week beginning July 17, Dr. Richard Gause Boone, Editor of "Education," and formerly superintendent of the Cincinnati public schools, will give a series of lectures, as follows:

I. Forms of Education.
II. Teaching and Learning.
III. The Development of the Public School.
IV. Ends and Means in Education.
V. The School as a Social Centre.
VI. Emerson, the Poet-Teacher.
VII. Hebrew Culture in Modern Civilization.

July 17 to 22, 3:00; 14 M.

Two evening lectures.

Jasper Newton Deahl.

Courses 1, 2, and 3 are continuations of those of the same names and numbers given in 1904. They may be taken with profit by students who either did or did not take the corresponding courses in 1904.

1. **The Recitation and the Method of Teaching.** This course will make a critical examination of the principles underlying methods of conducting the recitation and of teaching. Model lessons will be observed, reported upon, and discussed in a systematic way. Lesson plans will be made, criticised, and tested with a class of pupils. Students taking this course will be given an opportunity to do some practice teaching with Miss Griswold as critic teacher. 9:00; 2 M.

2. **Philosophy of Education.** This course will present some of the fundamental principles of education. It will embrace a study of the following topics:

1. Modern Education Ideals.
2. The Fundamental Education Process.
3. Heredity and Environment in Education.
4. Health in Education.
5. Work and Fatigue.
6. Interest and Attention.
7. Habit in Education.

The course will consist in readings, oral and written reports, class work and discussions. 11:00; 2 M.

3. **Administration and Supervision of Schools.** This course will present the principles that control the proper supervision of schools by

principals and superintendents, so far as such principles may be presented in six weeks' study. It will deal with the following topics:

1. The Functions of Boards and the business Administration of Schools.
2. School Furniture and School Architecture.
3. The Superintendent of Schools—His Preparation and His Duties.
4. The Classification of Pupils and the Study Period.
5. The Course of Study and the Grading of the School.
6. The Daily Program.
7. The Educational Resources of the Community and Their Organization for Educational Endeavor.

A proper use will be made of typical courses of study and systems of schools as found in this country. The classes for observation will furnish a concrete basis for the study and discussion of class room supervision. 2:00; 2 M.

4. Seminar. This course will offer both individual and class work in any one or more of the following subjects: rural school problems; high schools; method of teaching special subjects, as history, literature, mathematics, etc.

Students taking this course will meet the instructor two or three times a week at such hours as may be arranged. 2 M.

PRIMARY WORK AND METHODS.

Sarah E. Griswold.

The classes for observation will consist of pupils beginning the work of the first, the third and the sixth years, and the course of instruction will include the various subjects taught pupils of these grades. Emphasis will be placed upon available sources of first hand knowledge, its relation to text-book work, and to the various modes of expression, including various forms of construction. In nature study and in geography field-work will be done. Students taking education with Professor Deahl will have the privilege of doing some practice teaching with these classes of pupils.

1. Classes of First and Third Year Pupils, 8:30 to 10:00.

2. Classes of Sixth Year Pupils, 10:00 to 11:30.

3. Conferences. Miss Griswold will meet the observers for a number of conferences upon the work illustrated with the classes of children. Topics for these conferences will be as follows: The aim of the work; the educative value of subject matter found in nature study, geography, history and literature; the relation of thought to form in teaching language, reading, number, and modes of expression; the preparation of a lesson; the recitation; the study period and seat work; training and discipline. 3 M.

PSYCHOLOGY.

Margaret K. Smith.

Work in this subject will cover Lectures and Conferences.

1. History of Speculative and Experimental Psychology.
2. Relation of Physics and of Physiology to Psychology.
3. The Interaction of Mind and Body.
4. The Processes of Sensation, Sense-Perception, Reproduction
5. The Phases of Imagination—Recognition, Interpretation, Creation. and Generalization.
6. Psychology as the Foundation of Pedagogy.
7. The Significance of Child Study.
8. The Psychological Significance of Language.
9. Language as a Means of Intellectual Development.
10. Measurement of Reaction Time for Hearing, Touch, Sight.
11. Tests for Fatigue, etc.

The precision instruments will be used for the purposes of illustration. The best interests of the students will determine the character of the experiments made. 8:00; 12 S.

GEOGRAPHY AND PHYSIOGRAPHY.

Margaret K. Smith.

Work in this subject will cover two courses:

I. **Lectures with Outlines.** Topics discussed:

1. Theories of the Origin of the Earth.
2. Place of the Earth in the Solar System.
3. Astronomical and Mathematical Geography.
4. Structure of the Earth.
5. Continents, Relief, Drainage, Mountain-Making, Indentations, Distribution.
6. Distribution of Waters.
7. Winds and Ocean Currents.
8. Geographical Determination of Life, and of Man's Activity in Industry, Government, Art, Religion, Philosophy.

NOTE.—Such changes will be made in this outline as the best interests of the class may require. 11:00; 12 S.

II. **Geography as a Subject of Instruction.** Topics discussed:

1. Development of Geographical Knowledge in the World.
2. Physchological Value of Geography as a Subject of Instruction.
3. The Scope of Geography.
4. The So-Called Methods of Presenting Geography.
5. Illustrative Material in Teaching Geography.

6. Illustrative Lessons Upon the Geographical Determination of the Crusades.
7. Series of Lessons on Astronomical Geography.
8. Geographical Determinations of the Development of Great Britain, Japan, and New Zealand. (Lesson.)
9. Text-books in Geography.
10. Course of Instruction in Geography for the First Eight Years of School Work.

NOTE.—Advantage will be taken of all possible opportunities for out-door work, and for visiting places of local interest.

NOTE.—Conferences for the exchange of views will be had when convenient. 2:00; 12 S.

HANDWORK.

Sarah E. Griswold.

This course will present work that may be done by teachers in the ordinary rooms of the public schools without special manual training equipment. The articles made will be such as meet genuine needs of the pupils, either for actual use or for purposes of illustration in the study of other subjects. The work will include the use of clay, construction with paper and cardboard, weaving with raffia and other materials, also some sewing and whittling, and special care will be taken to find and utilize simple, native materials. During the progress of the work there will be discussions of its relations and values in education.

The class will meet twice a week at some afternoon hour. See Miss Griswold for information as to time and place.

NATURE STUDY.

John L. Sheldon.

This will be a popular and practical course for students, teachers and others who desire to obtain some general information about the beneficial as well as the injurious organisms known as microbes. Lectures with demonstrations, recitations and laboratory work. Laboratory work to illustrate more fully the class work will be offered to as many as it is possible to provide with apparatus. Any one can register for class work only, or for both class and laboratory work. A credit of one-half course will be given for the completion of both class and laboratory work.

Conn's "Bacteria, Yeasts and Moulds in the Home" will be used as a text.

Class work, July 3 to July 22, 10 A. M.; laboratory work, 2 P. M.; 10 A.

LIBRARY SCIENCE.

Pauline G. Wiggin.

This is an apprentice course, designed to help persons who have charge of small school or town libraries. Students will be assigned in rotation to work in the different departments of the library, ordering, accession, classification, cataloguing, shelf-listing, circulation, etc. Principles and methods will be explained and the work criticized.

ENGLISH LITERATURE.

Nathaniel Butler.

The subjects of Dr. Butler's lectures upon Literature will be as follows:

I. Uses of Literature.
II. The Leading forms of Poetry.
III. Matthew Arnold.
IV. The Essay as a Form of Literature.
V. Oliver Wendell Holmes.

June 19 to 24; hour and place to be announced.

Edward Everett Hale, Jr.

During the week beginning July 10, Dr. Edward Everett Hale Jr., Professor of English in Union College, will give the following courses of ten lectures:

1. **A Logical Method in the Study of English.** This is a distinctly pedagogical course, taking up language lessons, composition, rhetoric, literature, and the application of logical principles to their teaching.

July 10 to 15, 3:00 P. M.; 14 M.

2. **An Introduction to the Study of Poetry.** This course will be based chiefly upon the poetry of Tennyson, Browning, Wordsworth, Poe, and Shelley, but with some reference to other nineteenth century poetry. July 10 to 51; hour and place to be announced.

Robert Allen Armstrong.

1. **The Fundamentals of English Grammar.** An outline study of English Grammar with some attention to the history of the forms and relations of the words in the English sentence. The main facts of the English language will be studied with an attempt to explain them by reference to underlying principles and relations of the language. 8:00; 13 W.

2. **Poetry—English Lyrics.** A study of a number of the most noted lyric poems of English literature with reference to form, thought, imagination, beauty, and emotion. The purpose is not to use the material for critical analysis, parsing, and trope-hunting, but to

find poems that will both instruct and delight, that may be both studied and enjoyed. The poems to be read will be selected from the four parts of Palgrave's Golden Treasury. 9:00; 13 W.

3. Shakespeare. Three plays will be studied: The Merchant of Venice, Romeo and Juliet, and Macbeth. Chief attention will be given to literary interpretation, but there will be such study of sources, dramatic form, language, etc., as is necessary to a clear understanding of the plays read. 10:00; 113 W.

4. Types of American Fiction. The types studied will be as follows: (a) The Romance of Adventure (Cooper's The Pathfinder); (b) The Psychological Romance (Hawthorne's The House of the Seven Gables); (c) The Realistic Novel (Howell's The Quality of Mercy); (d) The Early Romantic Tale (Irving, Hawthorne, Poe); (e) The Realistic Short Story (James and Miss Wilkins).

This work will be conducted on the seminar plan.

This class will meet once a week; hour to be arranged. 13 W.

Waitman Barbe.

During the week beginning July 24, a course of lectures on "Plain Lessons from the Masters" will be given as follows:

I. Robert Herrick—The Joy of Life.
II. John Keats—The Gospel of Beauty.
III. Robern Browning—Progress Through Individual Aspiration.
IV. Alfred Tennyson—Progress Through Law.
V. William Wordsworth—"Blessed are the Poor in Spirit."
VI. Ralph Waldo Emerson—Intellectual and Spiritual Freedom.

July 24 to 29, 3:00; 14 M.

RHETORIC.

Charles Henry Patterson.

10. Composition. Daily themes, two long papers. Study of a prose masterpiece, recitations, class criticisms of written exercises, conferences, lectures. 10:00; 16 W.

11. Rhetoric. Two or three themes a week, two long papers, class criticisms, conferences, recitations, lectures. 8:00; 16 W.

13. Argumentation. Study of masterpieces, practice in written and spoken argument, one long paper, lectures. 9:00; 16 W.

16. The Essay. Essays of Charles Lamb, DeQuincy, Macaulay, and Matthew Arnold will be studied as illustrating uses of the essay form and its growth in nineteenth century literature. Writing of typical essays. 11:00; 16 W.

NOTE.—English 10 will be given. Of the remaining courses offered, the two which are most demanded will be given.

HISTORY AND POLITICAL SCIENCE.

James Morton Callahan.

Four courses are offered. Instruction is given by lectures, text-book work, assigned collateral readings, preparation of papers, syllabi and maps, special reports, recitations and informal conferences. Special attention is given to selection of matter, useful class exercises, direction to the text-books, and problems for the student and teacher of history.

1. European Background and Physical Basis of American History. (1) A survey of of European conditions and civilization which form a basis of American history; commerce and trade routes of mediaeval Europe; European industrial conditions and problems leading to search for new trade routes and to new discoveries; the influence of Italy, the pioneer work of Portugal, and the rise of Spain; Old World political institutions and religious differences which influenced the New World; the great chartered commercial companies, and the typical American colonizing companies; conditions in England at the time of the departure of colonists (the English church and religious troubles; the English political system and the English county and parish). (2) A survey of the physical features of North America, the principal lines of communication, the economic conditions, and the American Indian. 8:00; 4 M.

2. The Making of American History as Influenced by Geographical Conditions. A combination of the materials of American history and geography; discovery and colonization by the Atlantic States of Europe; influence of the eastern river gateways on colonial development; the wide Appalachian barrier as a protective bulwark and source of strength; influence of trans-Allegheny environment on the new settlers; "under the geographical control of western waters"; manifest destiny; development of American sea power; defense in war of 1812; advance of frontier along water courses to the threshold of the portals of the Rockies; control of expansion to the far west by overland routes and trails; causes and effects of growth of the United States to a continental power (scientific boundaries, isolation from Europe, leadership of the Americas, and largeness of views); inland waterways, and problems of communication and transportation; economic and geographical conditions in the slavery struggle and civil war; distribution and problems of immigration, cities, industries and railroads; American interests and opportunity in the West Indies and Panama; geography and American destiny. 9:00; 4 M.

3. The Makers of the Nation. (A course of several lectures designed especially for teachers in the public schools.) A study of the men who laid the foundations and framework of the American nation. The great events of American history are grouped around the life stories of great leaders and heroes who were the representative men

of their periods. Practical suggestions are given for bringing to students in the most concrete way the great milestones, the most picturesque landscapes and the most dramatic movements of American history. (No college credit is given for this course.)

Mondays; hour to be arranged.

4. History by Biographies—Modern Europe. The prominent events of European history since the fifteenth century are presented through a study of the representative leaders. 10:00; 4 M.

5. English History and Institutions. The founding, unfolding, and expansion of the English nationality, and the growth of English institutions. Special attention is given to political, social and industrial life and development. This course furnishes a good foundation, or background, for the study of American history. 11:00; 4 M.

Either course 4 or course 5 will be given, depending upon demand.

LATIN.

Alfred Jarrett Hare.

1. Elementary Course. This course is for beginners, and for teachers of elementary Latin who desire to review. The work will cover pronunciation, inflection, and easy translations to illustrate the principles of grammar presented in the text.

Chase and Stuart's "First Year in Latin." 8:00; 11 M.

7. Cicero. The text read will be the fourth oration against Catiline and the oration for Archias. The work will include careful translation, the history of the period, and grammatical construction.

A good course for high school teachers. 9:00; 11 M.

8. Vergil. The Aenid, Books, I. and II., will be read. The work will be translation, metrical reading, grammar, and Greek and Roman mythology.

Any good edition of Cicero or Vergil may be used; the grammar used will be Allen and Greenough's

GERMAN.

Frederick Wilson Truscott.

1. Elementary German. The purpose of this course is to acquaint the student with the elements of the grammar, to give him a reading knowledge of the easiest prose and as much practice as possible in pronunciation.

"Essentials of German" (Vos). 8:00 18 W.

2. Advanced German. This course is intended for students who have had at least one year's work in German. Rapid reading of prose and poetry. Translation of English into German. Discussion of idioms and grammatical points in connection with the translation.

"Kinderthraenen" (Truscott); "German Lyrics" (Hatfield); "German Composition" (Dresden). 9:00; 18 W.

3. **German Conversation.** Prerequisite, German 1. College credit will not be given for this course, but students taking course 2 are advised to take course 3 as supplementary work.

"Materials for German Conversation" (Vos). 10:00; 18 W.

CHEMISTRY.

Frederick L. Kortright.

1. **General Chemistry.** A course treating of the preparation and properties of the more important chemical compounds, and the general laws and theories of chemistry. This course will be especially adapted to the needs of teachers of science and nature study. Lectures and recitations. 8:00; 20 S.

2. **Experimental Chemistry.** A laboratory course in general chemistry, in which the preparation and a study of the properties of the more important chemical compounds will be undertaken. Hours to be arranged. 22 S.

3. **Qualitative Analysis.** A laboratory course treating of the separation and detection of the more common elements. Hours to be arranged. 22 S.

4. **Quantitative Analysis.** Students registering for this course will be assigned such work as they are prepared to do. Hours to be arranged. 22 S.

NOTE.—The work in chemistry will be adjusted, so far as possible, to meet the individual needs of the students, and credit will be given in proportion to the amount of work done. The regular laboratory fees, to cover the cost of the material used, will be charged.

MATHEMATICS.

James S. Stewart.

1. **Algebra.** Milne's Academic Algebra from involution (page 214) to about page 325. 8:00; 14 W.

2. **Analytic Geometry.** Cartesian and polar co-ordinates. Properties of conics; circle, ellipse, parabola, and hyperbola. Nichol's Analytic Geometry. 9:00; 14 W.

3. **Plane Geometry.** This course is for beginners or for those who desire to review plane geometry. Wells' Plane Geometry. 10:00; 14 W.

4. **Plane Trigonometry.** Development of formulae. Practical exercises and problems. Wells' Revised Trigonometry. 11:00; 14 W.

NOTE.—Students desiring other courses in mathematics than those announced above should consult with Professor Stewart. An effort will be made to give whatever is called for.

LAW.

St. George Tucker Brooke.

As usual in the Summer School, Dr. Brooke will give the following courses in Blackstone, dividing the work into two sections:

Blackstone, first section.	8:00; 27 W.
Blackstone, second section.	10:00; 27 W.

Edwin Maxey.

Dr. Maxey's courses in the Summer School will be as follows:

Agency.	9:00; 28 W.
Criminal Law.	11:00; 28 W.
Insurance.	Hour to be arranged; 28 W.

DESIGN.

Mary Ketcham.

This course is intended for those, whether teachers of drawing or not, who are interested in the study of art as applied in a practical way. The plan of the course, therefore, will be pursued from the standpoint of decoration rather than picture painting.

No previous preparation is required on the part of the student save the natural appreciation and adaptability which are necessary requisites to all good work in art.

The outline here given can indicate merely the general character of the work that will be undertaken in this course. No attempt is made to specify all the details that may receive attention, or the particular order in which the various features may be taken up. Much will depend upon the rapidity with which the student is able to advanced. The work will be done almost entirely with the brush, including practice in black and white and color. From the simplest arrangements of the straight line, exercises will proceed through the study of flower composition and the application of plant forms in designs for stained glass effects, damask patterns, rug sketches, stencils and the like.

The three principles of beauty will be carefully studied—balance, rhythm, and harmony—and numerous problems in line, in dark and light and in color will be worked out to illustrate these.

Flowers will be studied frequently—not for the purpose of obtaining a facsimile of the plant, but to observe the character of its growth; to learn the facts concerning it as a representative type rather than an individual specimen. Every part of the plant will be drawn, motifs thus being found for application to design.

Drawing in this way leads to the interpretation of nature rather than mere imitation. The object of this course is the development

of the sense of beauty and the power of imagination. It is planned to cultivate keenness of perception and accuracy of observation, as well as skill in execution.

The class will receive criticism three mornings a week—Monday, Wednesday and Friday. Work will be continued by the students on alternate mornings, to prepare for criticisms. The first meeting of the class will be held Monday afternoon, June 19, at three o'clock, in the drawing room of the Library.

The fee for the course is ten dollars.

BASKET WEAVING.

Mary Ketcham.

A course in basket weaving is also planned for Tuesday and Thursday mornings. This will include a study of the various Indian weaves found in the best examples of Indian basketry, and the working out of designs in them.

Fee, three dollars.

Drawing room of the Library; hour to be arranged.

DRAWING AND PAINTING.

Mrs. Eva E. Hubbard.

1. Drawing. Course designed for public school teachers. Blackboard illustration. Study of methods and application to different grades. Drawing of simple models as an aid in studying form and expressing light and shade. Principles of perspective explained and illustrated. Practice with pencil, charcoal, chalks or brush. 11:00; A.

2. Drawing. For beginners and advanced students. The study of form, light and shade. Drawing from casts and still life. 10:00; L.

3. Painting. In oils, water-colors and pastels. Special facilities for study of landscape painting and sketching at this season. Study of the figure and still life. Hours to be arranged; L.

Drawing 1 will be free.

Drawing 2, $3.00.

Painting, $8.00.

COOKING.

Mary Arline Zurhorst.

During the full six weeks of the Summer School courses in practical cookery will be given by Miss Mary Arline Zurhorst, Principal of the National Cooking School, Washington, D. C.; pupil of New England Cooking School; of Mrs. Janet McK. Hill, Boston; and of the late Mrs. Gesine Lemcke of New York.

Each lesson will be as much of a repast as it is possible to prepare in the allotted time of one and one-half hours, thus teaching not isolated dishes, but those which should be combined to form a nourishing, inviting, well-balanced meal.

Individual work will be insisted upon at every lesson, and to secure this result the classes are limited in membership to eight students each.

During the course invaluable knowledge of menu planning; the latest methods of serving and new schemes for table decoration are obtained by preparing and serving in the different classes appropriate refreshments for five functions, using unique favors. menu cards, etc. There will be a Japanese cherry blossom tea party, flower garden luncheon, wedding breakfast, Harvard dinner, patriotic dinner (July 4).

Those pursuing course 1 will learn many dainty economical ways of serving the necessities of life. Course 2 will give an insight into many secrets of the caterer's art. Housekeepers, cooking teachers, and domestic science graduates would profit by taking these lessons, as would those who understand the rudiments of culinary art.

Course 1. Cereals, breads, soups, fish, meats, plain cakes, salads, ices, puddings, beverages.

Course 2. Entrees, patisseries, moulded creams, soufles, croquettes, aspics, parfaits, chafing dish.

Schedule (Classes Meet Twice a Week).

First class, Mondays and Thursdays, 9:00 to 10:30.

Second class, Mondays and Thursdays, 10:30 to 12:00.

Third class, Mondays and Thursdays, 1:30 to 3:00.

Fourth class, Mondays and Thursdays, 3:00 to 4:30.

Same schedule on Tuesdays and Fridays, Wednesdays and Saturdays.

Fee per course, $10.00.

Students will provide themselves with cap, apron, sleeves and note-book. There will be no extra charge for materials or for work on special menus. Room 21 M.

THE SCHOOL OF MUSIC.

Ross Spence, Director.

John Porter Lawrence,
Instructor on the Piano and Organ.

Director of the Piano Department in the National Park Seminary; Organist at the New York Avenue Presbyterian Church, Washington, D. C.; Representative of Washington at the Buffalo Pan-American Exposition Concerts. He studied four years at Leipzig, Germany, where he took the Helbig prize, and has had extensive experience in teaching.

Alexander Stewart Thompson,
Instructor in Voice Culture.

Mr. Thompson was for five years Director of Music at Lincoln College, Lincoln, Ill., and came to Morgantown from Lombard College, Galesburg, Ill., where he was also in charge of the music department. He has had wide experience as a teacher and is a musician of broad training; his studies in this country and England have thoroughly fitted him to make use of the best methods of vocal culture in his classes.

Anton Kaspar,
Instructor in Violin.

Concert Master of the Georgetown Orchestra, Washington, D. C. A Bohemian by birth; studied in Prague under the renowned Master Bonnewitz, teacher of the great violinist, Kocian. Later he studied under Malo and Remy, two of the most celebrated violinists in Paris.

HISTORICAL LECTURE RECITALS.

Six of these recitals will be given during the Summer School, when the faculty will give lectures and programs, taking a great composer for each recital. These recitals will be given conjointly by the faculty and will be free.

RATES OF TUITION.

Piano.

John Porter Lawrence.

Six weeks' course, three private lessons a week.....$25.00
(30 minutes each.)

Susan Maxwell Moore.

Six weeks' course, three private lessons a week for children....$10.00
(30 minutes each.)

Organ.

John Porter Lawrence.

Six weeks' course, three private lessons a week.....$30.00
(30 minutes each.)

Voice.

Alexander Stewart Thompson.

Six weeks' course, three private lessons a week.....$25.00
(30 minutes each.)

Violin.

Anton Kaspar.

Six weeks' course, three private lessons a week.....$25.00
(30 minutes each.)

Mandolin, Guitar and Banjo.

Anton Kaspar.

Six weeks' course, three private lessons a week.....$15.00
(30 minutes each.)

Pianos for Practice.

One hour per day for six weeks, $2.50.

Two hours per day for six weeks, $4.00.

Three hours per day for six weeks, $5.00.

Clavier practice for six weeks, one hour per day, $1.00.

Organ practice twice the cost of piano practice.

All tuition and other fees are payable in advance. Sheet music provided for the cost of handling. Students can enter at any time; a slight reduction will be made for the time not taken in the full course.

For further information concerning the School of Music, write to Ross Spence, Director, Morgantown, W. Va.

SCHOOL OF METHODS FOR SUNDAY SCHOOL WORKERS.

For one week in the summer of 1904 the first School of Methods for Sunday School Workers was held in connection with the regular Summer School of West Virginia University. This was the first attempt by any state institution to give instruction in Sunday School principles and methods. Over one hundred Sunday School teachers and officers were in attendance, and the enterprise was a distinct success in every way. This auspicious beginning has encouraged the promoters of the enterprise to continue it indefinitely. Arrangements have been made, therefore, for the second session of the School of Methods for Sunday School Workers, to be held at Morgantown, beginning June 26, in connection with the University Summer School. The purpose of the School of Methods is to apply the soundest and most approved educational principles and methods to Sunday School organization and teaching. The State Sunday School Association has formally endorsed the movement and the leading Sunday School workers in the state are giving it their support and encouragement.

FEES.

A fee of one dollar will be charged for enrollment in the School of Methods; students of the regular Summer School will not be required to pay this fee.

PLACE OF MEETING.

The meetings of the School of Methods will be held on the second floor of Martin Hall; most of them in the Y. M. C. A. assembly room.

PROGRAM.

Monday—Morning.

9:45 Music.....A. S. Thompson
10:00 Essentials of Teaching—Matter, Motive, Method..D. B. Purinton
10:30 A Bible Lesson Studied.....J. N. Deahl
11:00 The Type and the Individual.....Charles Roads
11:30 Conference on the Work of the Morning.....W. C. Shafer

Afternoon and Evening.

3:00 Some Practical Experiments in Providing a Graded Course of Study.....Charles Roads
Discussion.....Miss Griswold
7:15 The Bible Hour (on campus).

Tuesday—Morning.

9:00 A Bible Lesson Studied.....T. E. Hodges
9:30 Co-operation of Sunday School and Church.....W. C. Shafer
10:00 Sunday School Music.....A. S. Thompson
10:30 Aims and Purposes of the Sunday School.....J. N. Deahl
11:00 The Psychological Basis of Grading a School.....Charles Roads
11:30 Conference on the Work of the Morning.....L. E. Peters

Afternoon and Evening.

3:00 How Shall We Make the Children Independent Workers?
.....Margaret K. Smith
4:00 Department work in three sections:
(1) Primary and Junior Workers.....Miss Griswold
(2) Intermediate and Senior Workers.....Charles Roads
(3) Superintendents, School Officers, and Pastors...L. E. Peters
7:15 The Bible Hour (on campus).
8:00 The Formative Forces in Human Nature.....Charles Roads

Wednesday—Morning.

8:00 A Bible Lesson Studied.....R. A. Armstrong
8:30 The Book We Teach.....L. E. Peters
9:00 Sunday School Music.....A. S. Thompson
9:30 Complete Department Organization.....Charles Roads
10:00 Historical Setting of Bible Lessons.....J. M. Callahan
10:30 Conference on the Work of the Morning.....W. C. Shafer
11:00 Music Recital in Commencement Hall.

Afternoon and Evening.

3:00 The Boy.....Charles Roads
4:00 Department work in three sections:
(1) Primary and Junior Workers (a class of children taught).....Sarah E. Griswold
(2) Intermediate and Senior Workers (next Sabbath lesson taught).....Charles Roads

(3) Superintendents, School Officers, and Pastors (Grading the schools).....C. Humble
7:15 The Bible Hour (on campus).
8:00 The Social Character of Consciousness and Its Bearing on Education.....Margaret K. Smith

Thursday—Morning.

9:00 A Bible Lesson Studied.....W. C. Pearce
9:40 Music, Singing.....A. S. Thompson
10:00 Co-operative Work.....C. Humble
10:30 The Teacher a Student.....H. M. Hamill
11:00 Teachers Trained and Specialized.....Charles Roads
11:30 Conference on Work of the Morning.....L. E. Peters

Afternoon and Evening.

3:00 Graded Supplemental Work in Sunday School.....H. M. Hamill
4:00 Department work in three sections:
(1) Primary and Junior Workers (literature and nature study).....Sarah E. Griswold
(2) Intermediate and Senior Workers (a lesson taught)..
.....C. Humble
(3) Superintendents, School Officers, and Pastors (teachers' training actually accomplished).....Charles Roads
7:15 The Bible Hour (on campus).
8:00 The World-wide Sunday School Movement.....W. C. Pearce

Friday—Morning.

9:00 A Bible Lesson Studied.....W. C. Pearce
9:40 Music, Singing.....A. S. Thompson
10:00 Home Department.....Miss Graham
10:30 The Teacher Himself.....H. M. Hamill
11:00 The Child.....Charles Roads
11:30 Conference on Work of the Morning.....C. Humble

Afternoon and Evening.

3:00 Teaching, a Science.....H. M. Hamill
4:00 Department work in three sections:
(1) Primary and Junior Workers (a class of children taught).....Sarah E. Griswold
(2) Intermediate and Senior Workers (Problems of teachers).....Charles Roads
(3) Superintendents, School Officers, and Pastors (the country and village school).....W. C. Pearce
7:15 The Bible Hour (on campus).
8:00 The Bible and Education.....H. M. Hamill

Saturday—Morning.

9:00 A Bible Lesson Studied.....W. C. Pearce
9:40 Music, Singing.....A. S. Thompson
10:00 Some of My Experiences in Sunday School Work.....
.....Sarah E. Griswold
10:30 The Teacher's Preparation.....H. M. Hamill
11:00 The Youth.....Charles Roads
11:30 Conference on Work of the Morning.....H. M. Hamill

Afternoon.

Holiday Outing.

Sunday—Morning.

9:30 The Sunday School specialists will visit the schools of the city.

Afternoon.

3:00 Sunday School Rally: Addresses by Dr. Roads and Mr. Pearce, followed by a meeting for Sunday School workers, if desired.

COLLEGE OF VETERINARY SCIENCE

By recent action of the Regents the College of Veterinary Science has been organized as a new department of the University. It is especially designed as an enlargement of the work offered in Agriculture, but is open to all students who may desire to take any or all of its courses. The College will be in full operation at the opening of the Fall Quarter, 1905. Three years of veterinary work will be given in accordance with the standards of the best veterinary colleges of America. The first year, including laboratory work, will be given at the University. The second and third years will be given at Pittsburg, Pennsylvania. This arrangement is made in order to give students ample opportunity for clinics and hospital work. Such opportunity cannot be had except in a large city. No tuition will be charged West Virginia students for the first year's work. Inquiries concerning courses of instruction, rates of tuition and other matters of desired information, should be sent to the President of the University at Morgantown, or to Dr. James A. Waugh, 132 Washington Street, Pittsburg, Pennsylvania.

THE PREPARATORY SCHOOLS

THE PREPARATORY SCHOOL AT MORGANTOWN.

THE FACULTY.

ALFRED JARRETT HARE, A.M., Principal and Professor of the Latin Language and Literature.
SIMEON CONANT SMITH, A.M., Assistant in English.
BERTHA CLELAND BROWNING, A.M., Assistant in Mathematics.
DAVID DALE JOHNSON, A.M., Assistant in English.
DRUSILLA VICTORIA JOHNSON, A.M., Assistant in Greek and Mathematics.

Other Instructors Giving Courses in This School.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.
FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.
JOHN BLACK JOHNSTON, Ph.D., Professor of Zoology.
JAMES MADISON BURNS, Major U. S. Army, Professor of Military Science and Tactics and Commandant of Cadets.
HENRY SHERWOOD GREEN, LL.D., Professor of the Greek Language and Literatures.
ANDRE BEZIAT DE BORDES, Ph.D., Professor of Romance Languages and Literatures.
JOHN NATHAN SIMPSON, M.D., Associate Professor of Anatomy and Physiology.
WALTER LYNWOOD FLEMING, Ph.D., Professor of History.
WILLIAM JACKSON LEONARD, Associate Professor of Fine Arts.
EVA EMMA HUBBARD, Instructor in Drawing and Painting.
CHARLES COLLIER HOLDEN, A.B., Instructor in Romance Languages.
THOMAS CARSKADON JOHNSON, B.S., Agr., A.M., Instructor in Botany.
ALLEN WILSON PORTERFIELD, A.M., Instructor in German.
WILLIAM HENRY WHITHAM, A.M., Assistant in Physics and Geology.
JOSEPH WILLIAM LYONS, Assistant in Zoology.
CHARLES HENRY AMBLER, A.B., Assistant in History.

INFORMATION.

This is distinctly a preparatory school and aims primarily to prepare young men and young women for the freshman class of the University. The course of study is such, however, that any one who has successfully completed it will have received a fairly liberal education.

Thoroughness is imperatively insisted upon in every department and the quality of the work rather than the quantity thereof is uniformly demanded. The standard of scholarship is such that only young people of studious habits, reasonably fair ability, and a willingness to work should seek admission. A young man or woman who has a record of failure in other schools is not likely to succeed here. For rules governing scholarship, see under College of Arts and Sciences. Page 53.

Candidates for admission must be at least fifteen years of age and should have a good knowledge of the branches taught in the public schools of the State. They should be prepared to pass a creditable examination in reading, spelling, writing, geography, English grammar, and arithmetic. Applicants for admission from an accredited preparatory school will receive credit for work done in such school upon the presentation of a correct application blank properly filled out and signed by the head of such school, but hereafter no credit will be given for arithmetic.

The discipline is mild and reasonable but firm. Young people who do not choose to study and to deport themselves as ladies and gentlemen will be summarily dismissed. The preparatory department is not a reform school.

Special pains are taken by the principal and his assistants to render the school life valuable and pleasant to those who are under their care. Preparatory students have all the advantages of the University library, lectures, cadet corps, gymnasium, athletic grounds, etc. No better place can be found in the State for pleasant, thorough, intellectual work

DEPARTMENTS OF INSTRUCTION

BOTANY.

Mr. T. C. Johnson.

1. **Elementary Botany.** This is a laboratory course, with the use of dissecting and compound microscopes, and includes structure, function and classification of plants. A text-book will be used for a general guide. Winter; 9 A.

2. **A continuation of course 1.** Spring; 9 A.

CHEMISTRY.

Professor Whitehill and Associate Professor Kortright.

1. **Inorganic Chemistry.** This course is designed for beginners, and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements, and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Fall, first section, 9:30; second section, 11:30; 20 S.

2. **Inorganic Chemistry.** This course includes the study of the metallic elements, and special attention is paid to the application of chemistry in agriculture, engineering, medicine, and every-day life.

Winter, first section, 9:30; second section, 11:30; Fall, 10:30; 20 S.

3. **Organic Chemistry.** This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitation.

Spring, first section, 9:30; second section, 11:30; 20 S.

ENGLISH.

Mr. D. D. Johnson and Mr. Smith.

1. **Grammar and Composition.** This, with the following course, involves a practical drill in orthography, punctuation, and the principles

of grammar. Composition work is based upon the reading and study of selections from some American authors.

Fall, 9:30; Mr. Johnson, 10 M.

1a. Grammar and Composition. This course is of the same general character as the preceding but is intended especially for those who enter the school in the winter or spring terms, and who wish to make up deficiencies in English. (Not given unless ten or more students enter the class.)

Winter, Spring, 8:30; Mr. Johnson, 10 M.

2. Grammar and Composition. Continuation of course 1.

Winter, 9:30; Mr. Johnson, 10 M.

3. Elementary Rhetoric and Composition. In this and the two following courses, careful drill in reproduction and original composition is continued. In each course one of the English or American classics is studied closely. Exercises in oral composition, in writing paraphrases and amplifications, in the meaning and use of words, and in construction of sentences and paragraphs, are based on the reading.

Spring, Fall, 9:30; Mr. Johnson, 10 M.

4. Elementary Rhetoric and Composition. Continuation of course 3.

Fall, 10:30; Winter, 8:30; Mr. Smith, 13 W.

5. Elementary Rhetoric and Composition. Continuation of course 4.

Winter, 10:30; Spring, 8:30; Mr. Smith, 13 W.

6. Composition and Rhetoric. In this, and the following course, careful drill in composition is continued, embracing a study of the sentence, the paragraph, and the theme; and of diction, the figures of speech, and the important forms of prose and poetry. In each of these courses one of the English or American classics is studied closely in class, and book reviews and outlines are prepared of other required readings. Some attention is paid to the review of grammatical principles and to the history of the English language.

Spring, 10:30; Fall, 8:30; Mr. Smith, 13 W.

7. Composition and Rhetoric. Continuation of course 6.

Fall, 10:30; Winter, 11:30; Mr. Johnson, 13 W.

8. English Literature. Courses 8 and 9 are devoted to the teaching and study of some of the English classics prescribed in the college entrance requirements. So far as practicable this work in literature is made to illustrate and enforce the knowledge already gained from the study of rhetoric. Critiques and reviews are continued in this and the following course.

Winter, 10:30; Spring, 11:30; Mr. Johnson, 10 M.

9. English Literature. Continuation of the preceding course.

Spring, 10:30; Fall, 11:30; Mr. Johnson, 10 M.

Note.—Students will not be admitted to courses 8 and 9 until they have credit for all the preceding courses.

FRENCH.

Professor Beziat de Bordes and Mr. Holden.

1. Elementary Course. Three sections.

(a.) Grammar, reading, practice in pronunciation, and oral understanding. Beziat de Bordes' Elements of French. Aldrich and Foster's French Reader. Fall, 9:30; Mr. Holden, 2 M.

(b.) Rapid reading course. The aim of this course is to enable students to acquire, in a short time, a reading knowledge of French for research work in other departments. No special attention is paid either to oral or to composition work. Beziat de Bordes' Elements of French; Aldrich and Foster's French Reader; Malot's Sans Famille (Thieme Edition). Fall, 10:30; Mr. Holden, 2 M.

(c.) Conversation Course. In this course the work is carried on entirely in French, from the outset, through the natural, or direct method of instruction. Fall, 11:30; Professor Beziat de Bordes, 11 W.

2. Elementary Course. A continuation of course 1.

(a.) Beziat de Bordes' Elements of French completed. Malot's Sans Famille (Thieme Edition). Winter, 9:30; Mr. Holden, 2 M.

(b.) Halevy L' Abbe Constantin; Scientific French Reading; Selection from French History. Winter, 10:30; Mr. Holden, 2 M.

(c.) Conversation based on Halevy's L' Abbe Constantin; Balzac's Eugenie Grandet.
Winter, 11:30; Professor Beziat de Bordes, 11 W.

3. Elementary Course. A continuation of course 2.

(a.) Composition based upon Merimee's Colomba; About's Le Roi des Montagnes; Feuillet's Le Roman d' un jeune homme pauvre.
Spring, 9:30; Mr. Holden, 2 M.

(b.) Moliere's Le Bourgeois Gentilhomme; Voltaire's Le Siecle de Louis XIV; Victor Hugo's Hernani; current scientific literature.
Spring, 10:30; Mr. Holden, 2 M.

(c.) Conversation based upon George Sand's Nanon; About's Les Mariages de Paris. Composition: Larousse's Cours de Style.
Spring, 11:30; Professor Beziat de Bordes, 11 W.

4. Fiction of the Nineteenth Century. Works of Daudet, Dumas, Balzac, Loti, Gautier, etc. Composition based upon Larousse's Cours de Style. Oral practice. Exercises in dictation continued through course 5. For students who have had one year of French.
Fall, 11:30; Mr. Holden, 2 M.

5. A Continuation of Course 4. Winter, 11:30; Mr. Holden, 2 M.

6. An Introduction to Classic Writers. The work is based upon Demogeot's Textes Classiques de la Litterature Francaise (Hachette et Cie). Outside reading assigned. Spring, 11:30; Mr. Holden, 2 M.

SPANISH.

Professor Beziat de Bordes.

1. **Elementary Course.** Grammar and reading, with practice in pronunciation, conversation, and composition. Loiseaux' Spanish Grammar and Reader. Fall, 9:30; 11 W.

2. **Intermediate Spanish.** Conversation based on readings from the works of modern Spanish authors. Composition. Winter, 9:30; 11 W.

3. **Modern Spanish Literature.** Careful study of works by modern Spanish and Spanish-American writers, such as Nunez de Arce, Perez-Galdos, Compoamor, Heredia, Trueba, etc. Spring, 9:30; 11 W.

GERMAN.

Professor Truscott and Mr. Porterfield.

1. **Elementary German.** A course for beginners, the object being to acquaint the student with the elements of the grammar, to give him a reading knowledge of the easiest German prose, and as much practice as possible in pronunciation. Thomas' "Grammar," Part I; Super's "Elementary German Reader," Part I.

Fall, first section, 9:30; second section, 10:30; Winter, 11:30; Professor Truscott, 19 W.

2. **Elementary German.** A continuation of course 1. Reading of easy prose and poetry. Several poems will be memorized. Super's "Elementary Reader." Grimm's "Maerchen." Hervey's Exercises to Thomas' "Grammar."

Winter, first section, 9:30; second section, 10:30; Mr. Porterfield. Spring, 11:30; Professor Truscott, 19 W.

3. **Elementary German.** A continuation of course 2. Reading, dictation. Elementary work in composition, accompanied by a review of the main points of the grammar. "Immensee;" "Hoeher als die Kirche;" "L'Arrabbiata;" Hervey's Exercises to Thomas' "Grammar." Fall, 11:30; Spring, first section, 9:30; second section, 10:30; Mr. Porterfield, 19 W.

4. **German Prose.** Rapid reading of a large amount of prose by modern authors to render the student familiar with the more general phases of the language. Fall, 8:30; Mr. Porterfield; 19 W.

5. **Composition.** Translation of English prose into German. Discussion of grammatical points in connection with the translation. Dictation. Study of the irregular verbs. Harris' "Prose Composition;" Thomas' "Grammar," Part II. Winter, 8:30; Mr. Porterfield, 19 W.

6. **German Poetry.** Translation of two long poems. Reading and memorizing of several well-known poems. Von Klenze's "Deutsche Gedichte;" "Hermann und Dorothea;" "Trompeter von Saekkingen." Spring, 8:30; Mr. Porterfield, 19 W.

GREEK.

Professor Green and Miss Johnson.

1. **White's First Greek Book (Chapters I-XL).** This course is for beginners. The work covers pronunciation, accent, declensions and conjugations, etymology of words, and simple translations from Greek into English and from English into Greek to illustrate the principles of grammar as given in the text. Fall, 8:30; Miss Johnson, 7 M.

2. **First Greek Book (Completed).** This is a continuation of course 1. Prerequisite, Greek 1. From the beginning much attention is paid to the vocabulary. Daily exercises in sight reading. The first book of the Anabasis is read in connection with courses 1 and 2. Winter, 8:30; Miss Johnson, 7 M.

3. **Xenophon's Anabasis (Books II, III and IV).** Prose composition. A fuller knowledge of the grammar is required. Prerequisites, Greek 1 and 2. Goodwin's "Xenophon's Anabasis;" Goodwin's "Greek Grammar;" Pearson's "Greek Prose Composition." Spring, 8:30; Miss Johnson, 7 M.

4. **Select Readings.** Selections from the works of Xenophon and Herodotus. Continued sight reading. Review of Greek accidence and further study of syntax. Fall, 10:30; Professor Green, L.

5. **Lysias's Orations.** A study of the form of Greek orations and Lysias's style. Collateral library work assigned to each student. Sight reading. Prerequisites, Greek 1, 2, 3, and 4, or their equivalent. Winter, 10:30; Professor Green, L.

6. **Homer's Iliad or Odyssey (Books I, II, and III) and Homeric Verse.** All the text is read metrically. Etymology, mythology, and prosody receive special attention. Seymour's "Iliad." Collateral reading: Jebb's "Introduction to Homer;" Gladstone's "Time and Place of Homer." Prerequisites, Greek 1, 2, 3, 4, 5. Spring, 8:30; Professor Green, L.

HISTORY AND CIVICS.

Professor Fleming and Mr. Ambler.

The following historical courses are intended to present a general outline of the field of history and to furnish a suitable introduction to the college courses in history. The course in civics gives the preparation required of students who desire admission to the college courses in political science. [Preparatory students are advised not to take more than one course in history or civics in one term.]

1. **History of Greece.** An outline study of Greek history with special reference to the development and peculiar characteristics of Greek civilization. Fall, 8:30; Professor Fleming, 6 M.

2. **History of Rome.** An outline study of Roman history from the founding of Rome to 476 A. D. Winter, 8:30; Professor Fleming, 6 M.

3. **Mediaeval and Modern History.** A general survey of the history of Western Europe from the break-up of the Roman Empire to the present time. Spring, 10:30; Professor Fleming, 6 M.

5. **History of England.** An outline of English History from the earliest times to the present. The founding, unfolding, and expansion of the English nationality, and the growth of English institutions. Fall, 8:30; Mr. Ambler, 8 M.

6. **Outlines of United States History.** A general course of narrative and political history required for admission to all other courses in United States history. Winter, 8:30; Mr. Ambler, 8 M.

7. **Civics. West Virginia and the Nation.** This course presents an outline of (1) the history and government of West Virginia; (2) the structure of the Federal government and the methods of governing under it; and (3) the rights and duties of American citizens. The student should be familiar with the matter given in an elementary text such as Forman's "First Lessons in Civics." The class texts for 1903-04 were: Dawes' "How We Are Governed" and Fast and Maxwell's "History and Government of West Virginia." In addition to these the members of the class also read Harrison's "This Country of Ours." Spring, 8:30; Mr. Ambler, 8 M.

LATIN.

Professor Hare.

1. **Etymology.** Chase and Stuart's "First Year in Latin," pages 9-125. Fall, 8:30 and 11:30; Spring, 8:30; 11 M.

2. **Syntax.** Chase and Stuart's "First Year in Latin," pages 126-180. Winter, 8:30 and 11:30; 11 M.

3. **Oratio Obliqua, and Caesar (Book I., Chs. 1-29).** Chase and Stuart's "First Year in Latin," completed. Spring, 11:30; 11 M.

4. **Caesar's Gallic War (Books I. and II.)** Fall, 10:30; 11 M.

5. **Caesar's Gallic War (Books III. and IV.)** Winter, 10:30; 11 M.

6. **Cicero's Orations against Catiline, I., II., and III.** Spring, 10:30; 11 M.

7. **Cicero's Fourth Oration against Catiline, the Oration for Archias, and the Aeneid of Virgil, (Book I.)** Fall, 9:30; 11 M.

8. **Virgil's Aeneid (Books II., III., and IV.)** Winter, 9:30; 11 M.

9. **Virgil's Aeneid (Books IV., V., and VI.)** Spring, 9:30; 11 M.

Latin Composition is required once a week in courses 7, 8, and 9.

Allen and Greenough's "Latin Grammar," revised edition, is used in courses 4-9.

The prerequisite for any course is each of the preceding courses.

MATHEMATICS.

Miss Browning and Miss Johnson.

Algebra.

1. Algebra, to Highest Common Divisor. Milne's Academic Algebra to page 115. Fall, 10:30; Spring, 8:30; Miss Browning, 3 M.

2. Algebra, to Involution. Milne's Academic Algebra to page 214. Winter, 10:30; Miss Browning, 3 M.

3. Algebra, to Ratio and Proportion. Milne's Academic Algebra to page 325. Spring, 10:30; Fall, 11:30; Miss Browning, 3 M.

A second section of Algebra 1, 2, and 3 is arranged for when the class is large. Miss Johnson, 7 M.

4. Algebra. Simple equations, discussion of problems, zero and infinity, inequalities, involution, theory of exponents, radicals, quadratic equations, arithmetical and geometrical progressions, to undetermined coefficients. Well's University Algebra, pages 103-304. Fall and Spring, 8:30; Miss Browning, 3 M.

Geometry.

5. Plane Geometry, Rectilinear Figures, and the Circle. Well's Plane Geometry, Books I. and II. Fall, 9:30; Miss Browning, 3 M.

6. Plane Geometry, completed. Well's Plane Geometry, Books III. to V. Winter, 9:30; Miss Browning, 3 M.

PHYSICS.

Mr. Whitham.

1. Elementary Physics. Recitations, supplemented by experiments and laboratory exercises. One exercise per week at least will be devoted to individual laboratory work. Rowland and Ames' Elements of Physics. Prerequisite, Plane Geometry 1. Fall, 8:30; 11 S.

2. Elementary Physics. Continuation of course 1. Winter, 8:30; 11 S.

Courses 1 and 2 will satisfy the entrance requirements in physics. For more detailed statement as to these courses see pages 91 and 92.

PHYSICAL GEOGRAPHY.

Mr. Whitham.

Elementary Course. Credit for this is given only as a preparatory course. Fall and Spring, 10:30; 30 S.

PHYSICAL TRAINING.

Professor Chez and Mrs. Chez.

For the announcements of work in physical training for both men and women, see page 90.

By an order of the regents, physical training is required of all young men in the Preparatory School in the fall term of each year.

PHYSIOLOGY.

Dr. Simpson.

1. **Elementary Physiology.** Fall, Spring, 9:30; 2 W.
2. **Elementary Physiology.** Continuation of course 1. Winter, 9:30; 2 W.

ZOOLOGY.

Professor Johnston.

1, 2, and 3. General Zoology. The aim of these courses is to acquaint the student with the chief types of animal structure and with the general principles of biology.

Lectures Mondays, Wednesdays, 8:30.

Laboratory hours to be arranged. Fall, Winter, Spring; 17 W.

THE PREPARATORY SCHOOL AT MONTGOMERY

EXECUTIVE COMMITTEE.

C. E. HAWORTH,.....Chairman.
THOMAS C. MILLER,.....Secretary.
D. C. GALLAHER,.....Treasurer.

THE FACULTY.

JOSIAH KEELY, A.M., Principal.
(A. B. West Virginia University, A. M. Harvard University.)
Mathematics and Drawing.

G. W. CONLEY, A.B.
(West Virginia University.)
Latin and Physics.

MABELLE SCOTT, B.S.
(E. Aull Seminary, Missouri.)

EVA LAURA CRAGO, A.B.
(West Virginia University.)
Geography and Algebra.

MARION F. CABELL.
French and Music.

GENERAL INFORMATION.

The Preparatory School of the West Virginia University at Montgomery, in Fayette County, was established under the provisions of an act of the Legislature, passed February 15, 1895. The Montgomery heirs donated two acres of ground for the erection of suitable buildings, and, on January 4th, 1897, the school was opened to students.

The State Superintendent of Schools and two regents chosen from among the regents of the University exercise control, though the entire board may decide upon matters of importance.

The President of the University is ex officio president, and the course of study at Montgomery is subject to his approval, being con-

fined strictly to the regular preparatory work and to such work in the common branches as is absolutely necessary for the study of the higher branches.

The dormitory feature of the Montgomery School is perhaps its strongest claim to the patronage of the more immature students of the state. Board at the dormitory is ten dollars per calendar month. Rooms are furnished by the state.

SCHEDULE OF STUDY.

The work required to complete the prescribed preparatory course covers a period of three years, with an additional year for those who are not well prepared in the common branches, or who are not able to advance rapidly.

First Year.

Fall	Winter.	Spring.
Greek History,	Roman History,	General History,
English,	English,	English,
Physical Geography,	Physiology,	Algebra,
Latin.	Latin.	Latin.

Second Year.

Algebra,	Algebra,	Algebra,
English,	English,	English,
Greek or German,	Greek or German,	Greek or German,
Latin, French or Draw'g.	Latin, French or Draw'g.	Latin, French or Draw'g.

Third Year.

Plane Geometry,	Plane Geometry,	Solid Geometry,
Latin or French,	Latin or French,	Latin or French,
English,	English,	English or Botany,
Physics, Greek or German	Physics, Greek or German	Physics, Greek or German

To such as may require it, work will be given in elementary algebra, arithmetic, civil government, United States history, single entry bookkeeping, and physiology.

EQUIPMENT.

The building consists of a main structure with a wing on both the eastern and western sides, situated on an eminence southwest of and overlooking Montgomery, Fayette county, a thriving town, with a population of about 1900. The main building and the first floor of the new western wing are used for school purposes. All are connected by

broad corridors. The furniture is modern and convenient. A large chapel, well furnished, and four smaller rooms for music or recitations, occupy the second floor of the main building. The buildings are tasteful in design and useful in arrangement, and form a handsome and imposing structure, with all the modern conveniences, such as electric lights, water supply, telephone, electric bells rung by a clock, etc. The entire equipment is such as befits an institution of this character and design.

ATTENDANCE.

The enrollment for the present year, exclusive of music pupils, has reached one hundred and nineteen.

EXPENSES.

Fees.

The Preparatory School at Montgomery is free to all students of West Virginia, the only fee being an incidental fee of $1.50 per term, which aids in meeting the liabilities of the school for which no appropriation has been made. This fee is due at the beginning of each term in the year and must be paid not later than two weeks after entrance.

The time of entrance does not affect the obligation to pay this fee each term for which the student is enrolled.

Board.

Boarding at the dormitory costs $10 per calendar month, payable in advance.

Heating and Light.

The dormitory is heated by steam and the students are furnished with lights free of charge.

Total Expenses for the Year.

Boarding	$ 90.00
Washing	10.00
Laundry	5.00
Incidental fees	4.50
Books and Stationery	6.50
	$116.00

THE PREPARATORY SCHOOL AT KEYSER

THE FACULTY.

LLOYD LOWNDES FRIEND, A.B., Principal.
(West Virginia University.)
English.

MRS. IDA FLORENCE MENEFEE
(Graduate Wheeling Female College.)
History and Physical Geography.

JAMES CLARK SANDERS, A.B.
(West Virginia University.)
Physics and Chemistry.

WILLIAM MICHAEL BAUMGARDNER, A.B.
(West Virginia University.)
French and German.

ELSIE REES HOFFMAN
(Student New England Conservatory of Music.)
Piano.

JAMES WILLIAM HORN, A.B.
(West Virginia University.)
Latin and Greek.

ROBERT RAMON MILLER
(Commercial Department, Rochester Normal University.)
Commercial Branches.

PURPOSE.

The Keyser Preparatory School has been established primarily to fit young men and women for entrance to the courses of the West Virginia University. However, careful attention is given to directing the work of the such students as may find it impossible to enter upon a college course after leaving school.

TERRITORY ALLOTTED.

In establishing the school the State Legislature allotted to it eight counties as its distinctive terriory,—Grant, Mineral, Hardy, Hampshire, Preston, Pendleton, Tucker, and Randolph. This allotment was made

because it was supposed that the school would naturally draw most of its students from the counties most convenient to it. It is not confined to this territory, however; students are admitted from all parts of the state and from other states.

PLANT.

Grounds.—No more beautiful school site is to be found anywhere in West Virginia than that upon which the Keyser Preparatory School stands. It is a historic one, being "Old Fort Hill," upon which stood a Union fortification in time of the Civil War. It affords a splendid view of the famous and beautiful New Creek Valley on one side; and on the other, of the Back-bone Ridge of the Allegheny Mountains across the Potomac in Maryland. Here, Colonel Thomas B. Davis, of Keyser, generously donated seventeen acres of land to be used for the erection of buildings and to be beautified as a campus.

Buildings.—A school building has been erected that is in keeping with the site upon which it stands. It is a commodious brick and stone structure, built in the most modern style of school architecture, and is considered one of the handsomest and most complete school buildings in the state. The basement of this building contains the gymnasium and eight rooms used for chemical and physical laboratories, locker rooms, bath rooms, etc. On the first floor are the offices of the principal, the study hall, the library, and five recitation rooms. On the second floor are two halls for the use of the literary societies, three recitation rooms, and the large assembly hall. This building is furnished throughout with attractive and durable furniture, and the departments are equipped with all necessary apparatus.

COURSES OF STUDY.

There are two regular courses offered,—the Classical Preparatory and the Engineering Preparatory. The Classical Preparatory Course prepares for admission to the University course leading to the degree of Bachelor of Arts; the Engineering Preparatory Course prepares for admission to the University course leading to the degree of Bachelor of Science, of Bachelor of Science in Civil Engineering, or of Bachelor of Science in Mechanical Engineering. These courses are made to conform as closely as possible to those offered in the Preparatory School at Morgantown. As at present outlined, they cover a period of three years.

For students who are not sufficiently advanced to enter one of the regular courses, a year of sub-preparatory work is arranged.

Students deficient in only part of the work in this sub-preparatory year are allowed to make up their deficiencies and at the same time to pursue such studies in one of the regular courses as they are able to carry.

SUB-PREPARATORY YEAR.

Fall.	Winter.	Spring.
Arithmetic	Arithmetic	Civil Government
English.	English.	English.
Physical Geography	Physiology	American History
	American History	

CLASSICAL PREPARATORY COURSE.

First Year.

Fall.	Winter.	Spring.
Latin	Latin	Latin
English	English	English
English History	Greek and Roman	General History
Algebra	History	Algebra
	Algebra	

Second Year.

Greek or German	Greek or German	Greek or German
English	English	English
Latin or French	Latin or French	Latin or French
Algebra	Plane Geometry	Plane Geometry

Third Year.

Greek or German	Greek or German	Greek or German
Latin or French	Latin or French	Latin or French
Physics	Physics	Physics
Solid Geometry	Trigonometry	

ENGINEERING PREPARATORY COURSE.

First Year.

Fall.	Winter.	Spring.
English	English	English
English History	Greek and Roman	Book-keeping
Algebra	History	Algebra
Free Hand Drawing	Algebra	Free Hand Drawing
	Free Hand Drawing	

Second Year.

English	English	English
German or French	German or French	German or French
Algebra	Plane Geometry	Plane Geometry

Third Year.

German or French	German or French	German or French
Chemistry	Chemistry	Chemistry
Solid Geometry	Trigonometry	

COMMERCIAL COURSES.

In connection with the school at Keyser a commercial department is conducted in which the following courses are offered:

Business,
Shorthand and Typewriting,
Teachers' Business,
Penmanship and Drawing.

MUSIC.

A two years' course of instruction is given on the piano. A thoroughly trained and competent teacher is provided for this work. Instruments are furnished free for practice.

EXPENSES.

Fees.

No tuition is charged to West Virginia students.

Students coming from other states are required to pay a tuition fee of $5.00 per term.

An incidental fee of $1.25 per term is charged to all students.

The above fees and tuition charges are payable at the time the student enters the school.

All fees collected go towards paying the annual expenses of the school for which no appropriation is made.

Board and Lodging.

The price for table board ranges from $8 to $15 per month; furnished rooms from $3 to $6 per month. The price paid for board and lodging depends, of course, upon the tastes and means of the individual student.

STUDENTS

NOTE.—The names of all students in the University are printed in alphabetical order in four lists. The first list comprises all students in the colleges and schools which give diplomas, namely: The College of Arts and Sciences, the College of Engineering and Mechanic Arts, the College of Agriculture, the College of Law, the College of Medicine, the School of Music, and the School of Fine Arts. The second list includes all students in the Preparatory and Commercial Schools at Morgantown. The third and fourth lists give the names of the students in the Preparatory Schools at Montgomery and Keyser, respectively. Following each student's name there are given in separate columns his class and the course of study which he is pursuing or the degree for which he is a candidate. The word Freshman, Sophomore, etc., following the student's name indicates his rank on the first day of January, 1904. Students whose names are marked with an asterisk (*) are ranked as Freshmen, but are conditioned in one or more preparatory subjects.

COLLEGES AND SCHOOLS GIVING DIPLOMAS.

*Abersold, Samuel Clement,	New Martinsville,	Freshman,	B.S.C.E.
Aggleson, Bess Fairfax,	Davis,		Music.
Ahrens, Henry,	Wheeling,	Junior,	A.B.
Alderson, Fleming Newman,	Summersville,	Junior,	Diploma Law
Allison, John Bruce,	Dallas,	Freshman,	LL.B.
Amakuki, Sessan,	Myoshingi Kioto, Japan,	Graduate,	Ph.D.
Ambler, Charles Henry,	St. Marys,	Graduate,	A.M.
Amos, Clyde Ferguson,	Wheeling,	Senior,	LL.B.
Anderson, Ervin Leech,	Morgantown,	Senior,	A.B.
Anderson, Lewis Earle,	Millsboro, Pa.,	Freshman,	LL.B.
App, John Camillus,	Charleston,	Special,	
Arbogast, Jessie,	Buckhannon,	Special,	
Arbuckle, Lizzie Sarah,	Lewisburg,	Special,	
Armstrong, Gertrude,	Parkersburg,		Music.

Armstrong, Maude Ethel,	West Alexander, Pa.,		Music.
Armstrong, Robert Allen,	Morgantown,	Special,	
Arnold, Arthur,	Piedmont,	Junior,	Diploma L
Arthur, Theodore Joseph,	Reedsville,	Junior,	Diploma L
Atkeson, Leda Cordelia,	Morgantown,		Music.
Atkeson, Karl Clark,	Buffalo,	Special,	Agr.
Atkeson, Mary Meek,	Morgantown,	Special.	
Austin, Samuel Cecil,	Lewisburg,	First Year,	M.D.
Avis, Charles,	Logan,		Bar Law.
Babb, Haven Chester,	Medley,	Junior,	Diploma L
Backman, Lloyd Sutton,	Cleves, Ohio,	Sophomore,	B.S.M.E.
Baldwin, Mary Elizabeth,	Moundsville,	Special.	
Barb, Harry Fleming,	Amos,	Special,	Agr.
Barbe, Waitman,	Morgantown,	Special.	
Barbe, Clara Gould,	Morgantown,	Special.	
Barclay, Hugh,	Carmichaels, Pa.,	Junior,	Diploma L
Barker, Shelby Aaron,	Morgantown,		Bar Law.
Barnes, Blanche,	Fairmont,		Music.
Barnes, Walter,	Middlebourne,	Senior,	A.B.
Barnes, John Walter,	Sutton,	Special.	
Barnhart, Eugene Hildt,	Shepherdstown,	Junior,	B.S.C.E.
Barrett, George Thomas,	Franklin, Pa.,	Special,	Medical.
Bartlett, Estella,	Bridgeport,	Special.	
Bassell, Nellie Burr,	Lost Creek,		Music.
Baumgartner, Alberta C.,	Elk Lick, Pa.,	Senior,	A.B.
Bayles, Stella Rosevelt,	Morgantown,		Music.
Bayliss, William Garnett,	Dunloop,	Sophomore,	B.S.M.E.
Behrens, Edward Charles,	Sherrard,	Special,	Agr.
Belford, Beulah,	Sistersville,	Special.	
Bender, Carolyn Christine,	Chapel,	Sophomore,	A.B.
Bennett, Sarah Ann,	Morgantown,		Music.
*Bennett, Clyde Mortimer,	Morgantown,	Freshman,	B.S.C.E.
Berkeley, Fanny Campbell,	Morgantown,		Music.
Bernhardt, Tillie Ruth Cope,	Uniontown, Pa.,		Fine Arts.
Berry, John P.,	Flatwoods,	Special,	Agr.
Berry, John Charles,	Wheeling,	Sophomore,	A.B.
Bingamon, Howard Milton,	Lykens, Pa.,	Senior,	Diploma L
Black, Jacob Thomas,	Monitor,	Special,	Agr.
Black, Edward Virtue,	Big Bend,	Special.	
Black, Louis Eckert,	Newark,	Special.	
Bligh, Julia Morum,	Warsaw, N. Y.,	Special.	
Bloom, Carry Lilian,	Point Pleasant,		Music.
Bock, Edward Sidney,	Clarksburg,	Special.	
Boggess, Clinton Tippy,	Morgantown,	Junior,	A.B.
Bonafield, Ruby Clare,	Grafton,	Special.	
Bond, Charles Martin,	Sutton,	Special.	

Bonnifield, Berta Minear,	Morgantown,	Special.	
Boppell, C. J.,	Belington,	Special.	
Borror, Bruce,	Horton,	Special.	
Boughton, Flora Eddy,	Morgantown,	Special.	
Bowers, Larkin Bruce,	Brushy Run,	Special.	
*Bowers, Charles Albert,	Wheeling,	Freshman,	A.B.
Bowman, Frank Llewellyn,	Morgantown,	Junior,	LL.B.
Boyd, Esther Gertrude,	Auburn, Alabama,		Music.
Boyers, Charles Forrest,	Morgantown,	Senior,	B.S.M.E
Boyles, Frank Morris.	Piedmont,	Junior,	B.S.
Brake, Arthur Kent,	Buckhannon,	Sophomore,	B.S.M.E.
Brand, Willa Norvella,	Morgantown,	Special.	
Brand, Franklin Marion,	Morgantown,	Junior,	A.B.
Brannon, Henry, Jr.,	Weston,		Bar Law.
Brock, Martna,	Morgantown,		Choral Society.
Brock, Eleanor,	Morgantown,		Music.
Brookfield, Inez,	Smithfield,	Special,	
Brooks, Blanche Eliza,	French Creek,	Special,	
Brooks, Fred Earnest,	Morgantown,	Special,	Agr.
Brown, M. V.,	Buffalo,	Special.	Agr.
Brown, Charles Crawford,	Charleston,	Special.	Agr.
Brown, William Alexander,	Charleston,	Special,	Agr.
Brown, Luella Butcher,	Morgantown,		Physical Culture.
Brown, William Thomas, Jr.,	Grafton,	Sophomore,	B.S.C.E.
Brown, Bennie Edwards,	Davistown, Pa.,		Bar Law.
Brown, Carrie,	Grafton,	Special,	
Browning, Bertha Cleland,	Wellsburg,		Music.
*Broyles, James Samuel,	Wikel,	Freshman,	B.S.M.E.
*Bruce, Ernest Arden,	Bluefield,	Freshman,	B.S.C.E.
Buchanan, Margaret,	Morgantown,	Junior,	A.B.
Buchanan, Aaron Moore,	Morgantown,	Special,	
Burchinal, Anna Mary,	Cheat Haven, Pa.,		Music.
Burke, Aileen Dashiell,	Hinton,	Special.	
Burner, Allen Eugene,	Cass,	Special.	M.D.
Burns, Mary,	Morgantown,		Music.
Burns, Evalyn Sage,	Morgantown,	Sophomore,	A.B.
Burns, LaVega Washington,	Meadow Bluff,	Sophomore,	A.B.
Burnside, Samuel EdgarWade,	Good Hope,	Senior,	A.B.
Burt, Jeannette M.,	Wheeling,	Special.	
Butts, Edward Horner,	Jones Spring,	Special.	
Buxton, Marie,	Martinsburg,	Special.	
Byars, John William,	Alverton, Pa.,	Junior,	Diploma Law.
Byrer, Hugh Samuel,	Philippi,	Junior.	LL.B.
Cain, Jasper Myers,	Buffalo,		Bar Law.
Callison, James Henry,	Leivasy,	Sophomore,	A.B.
Calvert, Jasper Newton,	Morgantown,	Special.	M.E.

Camp, David Jesse Holland,	Morgantown,	Special,	Agr.
Campbell, John Edgar,	Moundsville,	Sophomore,	LL.B.
Campbell, George Howard,	Kasson,	Second Year,	Medical.
Carle, Ethel,	Eatons,	Senior,	A.B.
Carder, LaFayette Ashby,	Romney,	Special,	Agr.
Carman, Emma Pruden,	Urbana, Ill.,	Special.	
Carman, Earle Parke,	Bethany,		Bar Law.
Carney, Samuel Clyde,	Littleton,	Senior,	LL.B.
Carpenter, Una Virginia,	Fairmont,		Music.
Carr, Louis Arnold,	Clarksburg,		Bar Law.
Carroll, Hardin Duval,	Morgantown,	Senior,	B.Agr.
Carter, William Henry,	Philippi,		Bar Law.
Carter,Edward Emerson Perry,	Middlebourne,	Senior,	LL.B.
Casto, Charles Everett,	Belleville,	Junior,	A.B.
Cather, Ervin,	Morgantown,	Special,	Medical.
Chadwick, Mary,	Morgantown,		Music.
Charter, Lena Mabel,	Ravenswood,	Freshman,	A.B.
Charter, Jessie,	Ravenswood,	Special.	
Chenoweth, Willa Lorena,	Grafton,	Special.	
Chesney, Frances Virginia,	Fairmont,		Music.
Chez, Louise Ferris,	Morgantown,	Special.	
Chrisman, Martha Virginia,	Morgantown,		Music.
Chrisman, Mary Louise,	Morgantown,		Fine Arts.
Christie, Mary,	Fairmont,		Music.
Clapham, Elizabeth Marlow,	Grafton,	Special.	
Clarke, Asbury Jones,	Wheeling,	Special.	
Clarke, Mrs. Asbury Jones,	Wheeling,	Special.	
Clayton, Elizabeth,	Kingwood,		Music.
Click, Andrew Leopold,	Cottageville,	Special,	Agr.
Cobun, Bessie,	Reedsville,		Music.
Coffield, George Webster,	Peabody,	Junior,	A.B.
Coffroth, William Bruce,	Keyser,	Sophomore,	B.S.C.E.
Colbert, Josephine,	Martinsburg,		Music.
Colbert, Ada Rebecca,	Martinsburg,	Graduate,	A.M.
Colcord, Edward Clark,	St. Albans,	Sophomore,	B.S.C.E.
Colcord, Francis Carlton,	St. Albans,	Sophomore,	B.S.C.E.
Cole, Robert Lee,	Ceredo,	Junior,	A.B.
Cole, Jeremiah Wilson,	Cameron,	Sophomore,	A.B.
Colebank, George Henry,	Grafton,	Special.	
Collett, Albert Jackson,	Beverly,	Senior,	LL.B.
Collier, Glenn Albert,	Ceredo,	Sophomore,	B.S.M.E.
Collins, Nitia Pearl,	Morgantown,		Music.
Conaway, Orrin Bryte,	Alma,	Junior,	LL.B.
Conn, Clyde William,	Smithfield, Pa.,	Special,	M.D.
Connell, Russell V.,	Sink's Grove,	Special,	Agr.
Conway, Earle,	Fairchance, Pa.,	Junior,	Diploma La

Coogle, William Lee,	Rivesville,	Second Year,	Medical.
Cooke, Elizabeth Beatrice,	Morgantown,	Special.	
Cooke, Elizabeth Josephine,	Morgantown,		Music.
Coombs, Elisha H.,	Morgantown,		Choral Society.
Cooper, Homer Eber,	Auburn,	Junior,	A.B.
Cooper, Mary Hannah,	Parkersburg,	Special.	
Cooper, Flora P.,	Parkersburg,	Special.	
Copen, Clarence Elmer,	Elizabeth,		Bar Law.
Coplin, Mary,	Boothsville,	Junior,	A.B.
Corbin, John Eldon,	Good Hope,	Second Year,	Medical.
Core, Myrtle Otella,	Core,		Music.
Core, Minnie Leigh,	Mt. Morris, Pa.,	Special.	
Cornwell, James Strother,	Elkins,	Special.	
Cotton, Reardon Stewart,	Pittsburg, Pa.,	Senior,	A.B.
Courtney, Grace Olive,	Morgantown,		Fine Arts.
*Courtney, Crystal,	Morgantown,	Freshman,	A.B.
Courtney, Lizzie Lee,	Morgantown,		Music.
Courtney, Catherine,	Morgantown,		Music.
Cowden, Helen McClure,	Wheeling,	Special.	
*Cox, Nannie Leigh,	Fairmont,	Freshman,	A.B.
Cox, Lawrence Morgan,	Morgantown,		Choral Society.
Coyle, Sarah R.,	Morgantown,	Special.	
*Crago, Ray Cornelius	Adah, Pa.,	Freshman,	B.S.C.E.
Crane, Margaret Wardwell,	Morgantown,		Choral Society,
Crane, Stanhope Ordway,	Kingwood,		Music.
Crawford, Ralph Benjamin,	Ireland,	Special.	
Creel, Mary Gertrude,	Morgantown,	Special.	
Crow, Charles Sumner,	Point Marion, Pa.,	Junior.	A.B.
Crowe, Blanche,	Fairmont,	Special.	
Crumrine, Rhoda,	Morgantown,		Music.
Cummins, John William,	Wheeling,	Junior.	Diploma Law.
Currey, Addie Mary,	Petroleum,	Special.	
Currey, Marion Talbott,	Delphi,		Bar Law.
Cutright, Frank,	Sago,	Junior.	A.B.
Cutts, Hattie,	Montgomery,	Special.	
Darling, Anna Belle,	Morgantown,	Special.	
Darst, Helen Marjory,	Cottageville,	Special.	
Daugherty, Norval Rogers,	Donora, Pa.,	Senior.	LL.B.
Davis, Marguerite,	Morgantown,		Music.
Davis, Bessie Belle,	Morgantown,		Music.
Davis, Bruce,	Van Voorhis,	Senior.	A.B.
Davis, Nora Lou,	Cameron,	Special.	
Davis, David Richard,	Everson, Pa.,	Special.	
Davis, Walter Oral,	Morgantown,		Bar Law.
Dawson, Archibald Fielding,	Morgantown,	Special,	Agr.
Dayton, Arthur Spencer,	Philippi,	Sophomore,	A.B.

DeBolt, Gladys,	Fairmont,		Music.
DeBolt, Philip Yeager,	Sistersville,	Special.	
DeGant, Stella Cecilia,	Wheeling,	Special.	
Dent, Herbert Warder,	Grafton,	Senior.	LL.B.
Deulin, Lillian Edna,	Morgantown,		Music.
Deulin, Georgina,	Morgantown,		Music.
DeWitt, Lillie Irene,	Terra Alta,	Special.	
Dille, Maude Evans,	Morgantown,	Sophomore,	A.B.
Dinger, Charles Lowry,	Scottdale, Pa.,	Special.	
Dornan, William Gibson,	New Cumberland,	Junior,	A.B.
Dotson, Jacob Alban,	Hominy Falls,		Bar Law.
Douglas, Lillie Newlon,	Westminster, Md.	Special.	
Douglass, Jessie Brown,	Huntington,	Special.	
Douglass, Joseph Pendleton,	Huntington,		Bar Law.
Douthat, Dana Glenn,	Morgantown,		Music.
Douthat, Genevieve Lane,	Morgantown,		Music.
Downs, William Smith,	Martinsburg,	Junior,	B.S.C.E.
Drane, Robert McVeigh,	Piedmont,	Freshman,	B.S.C.E.
Dubois, Oscar,	Morgantown,	Special.	
Dudley, Edward Luther,	Grafton,	Junior,	B.S.M.E.
Dulany, Maud Ethel,	Mapletown, Pa.,		Music.
Dunbar, Frank Coleman,	Lewisburg,		Bar Law.
Dunbar, Jesse Tuckwiller,	Lewisburg,	Senior,	LL. B.
Dunham, Robert Wirt,	Belington,	Second Year,	Medical.
Dunn, Vester Brisan,	Reedsville,		Bar Law.
Dunn, Mildred,	Clarksburg,		Special.
Dunn, James Henry,	Smock, Pa.,	Special.	
Duval, Nelson Hammond,	Wellsburg,	Junior,	B.S.C.E.
Dyer, Edward R.,	Philippi,	Special,	Agr.
Dyer, Charles Theodore,	Handley,	Senior,	LL.B.
Edwards, Mary Dorothy,	Martinsburg,	Sophomore,	A.B.
Elliott, Lucile Ware,	Terra Alta,		Music.
Ellison, Addison Dunlap,	Greenville,	Senior,	B.S.Agr.
Ellison, Charles Alexander,	Hans Creek,	Junior,	B.S.M.E.
Ellison, Elizabeth Clara,	Hans Creek,		Music.
Elsom, Thomas Waverly,	St. Albans,	Special.	
Emory, Mary Dille,	Morgantown,	Special.	
Endsley, Gilbert Frey,	Brandonville,	Junior,	Diploma Law.
Ernst, Howard Mark,	S. Thompson, O.	Sophomore,	B.S.C.E.
Evans, Walter Maywood,	Morgantown,		Special.
Ewart, John Alexander,	Beckley,	Special,	Agr.
Fancher, Arthur Boyhan,	Montrose, Pa.,	Senior,	LL.B.
Faris, George Thomas,	Bridgeport,	Junior,	Diploma Law.
Fast, Herman Otho,	Herold,	Special.	
Fergusson, E. Morris,	Trenton, N. J.,	Special.	
Field, Frank Merle,	Grafton,		Bar Law.

Finch, Agnes Blanche,	Grafton,	Special.	
Fisher, Gladdine Ada,	Morgantown,		Music.
Flanagan, Daniel William,	E. Greenwich, R.I.,		Bar Law.
Fleming, Brooks, Jr.,	Fairmont,	Junior,	LL.B.
Fleming, Jennie Max,	Fairmont,	Special.	
Flenniken, Fred Colborn,	Carmichaels, Pa.,	Senior,	LL.B.
Fleshman, Howard Franklin,	Hinton,	Special.	
Flowers, Frank Earnest,	Glover Gap,	First Year,	Medical.
Fogle, Homer Bruce,	Morgantown,	Special.	
*Forbes, Melvin Llewellyn,	Lisbon, Ohio,	Freshman,	B.S.C.E.
Ford, Sarah Margaret L.,	Morgantown,		Music.
Foreman, Alexander Hardie,	Morgantown,	Junior,	B.S.M.E.
Forquer, Jas. Clark McGrew,	Brandonville,	Senior,	B.S.C.E.
Foster, Mabel Constance,	Chicago, Ill.,		Music.
Fortney, Camden Page,	Lumberport,	Sophomore,	B.S.C.E.
Fought, Ruby,	Newark,	Special.	
Foulk, Margaret Virginia,	Piedmont,	Freshman,	A.B.
Foulk, Thomas Bond,	Piedmont,	Sophomore,	B.S.C.E.
Fox, Earl Fillmore,	Tate,		Bar Law.
Francis, Thomas Robert,	Connellsville, Pa.,	Special,	Medical.
Francis, Charles Blaine,	Point Marion, Pa.,	Freshman,	B.S.
Frantz, Winter Reginald,	Cumberland, Md.,	Sophomore,	A.B.
Frayser, Nannie Lee,	Louisville, Ky.,	Special.	
Frazer, James Carroll,	Morgantown,	Special.	
Frazer, Leila Jessie,	Morgantown,		Choral Society.
Friedman, Harry,	Grafton,	Junior,	LL.B.
Friend, Wenona Elizabeth,	Morgantown,		Fine Arts.
Friend, Thomas Henry Holt,	Morgantown,		Fine Arts.
Freshwater, Philip,	New Cumberland,	Senior,	LL.B.
Fukuzawa, Daishiro,	Tokyo, Japan,	Special.	
Fulcher, Maud Louise,	Somerset, Pa.,	Special.	
Furman, Cecile,	Cassville,		Music.
Gain, Josiah Wesley,	Ganotown,	Special.	
Gale, Sarah C.,	Parkersburg,	Special.	
Gallagher, Elizabeth Josephine,	McDowell,	Special.	
Gallup, Elizabeth McLennan,	Morgantown,	Special.	
Gardner, Michael Edward,	Morgantown,	Special.	
Garee, Lloyd,	Sutton,	Special,	Medical.
Garrison, Blanche Edith,	Wadestown,		Music.
Garrison, John Dunham,	Sistersville,	Special.	
Garrison, Mrs. John Dunham,	Sistersville,	Special.	
Gatherum, Robert,	Gatewood,	Sophomore,	B.S.C.E.
George, James,	Ashton,	Special,	Agr.
George, Enoch Franklin,	Red Creek,	Special.	
Gibson, Mary Blanche,	Corley,	Special.	
Gibson, Clay Ashbel,	Morgantown,	Special,	M.E.

Gibson, James Davis,	Huntington,	Senior,	A.B.
Gist, Joseph Applegate,	Wellsburg,	Sophomore,	LL.B.
Gist, William Colver,	Wellsburg,	Junior,	A.B.
Gist, Maria,	Wellsburg,		Music.
Givens, Aaron Davis,	Washington,	Freshman,	A.B.
Glisan, Anna Catherine,	Markleysburg,Pa.,	Special.	
Goad, Nettie,	Strange Creek,		Music.
Goff, Minnie Lee,	Clarksburg,	Graduate,	A.M.
Gorby, John Henry,	New Martinsville,	Special.	
Gordon, Frances Thomas,	Morgantown,		Music.
Gorrell, Oliver,	Algeria,	Special,	Agr.
Graham, Martha V.,	Wheeling,	Special.	
Grant, Hannah Margaret,	Morgantown,		Music.
Green, Henry Sherwood,	Morgantown,	Special.	
Green, Ethel Averill,	Morgantown,	Sophomore,	A.B.
Greene, Daniel Myron,	E.Greenwich, R.I.,	Senior,	A.B.
Greer, Oscar,	Morgantown,	Special.	
Gregg, Lucile Chase,	Morgantown,		Music.
Griffin, G. D.,	Morgantown,	Special.	
Gronninger, James Davis,	Charleston,	Freshman,	A.B.
Grose, James Mortimer,	Valley Fork,	Special.	Agr.
Grout, Frank F.,	Morgantown,		Choral Socie
Grumbein, John Behny,	Morgantown,	Special.	M.E.
Guntner, Ida,	Morgantown,		Choral Socie
Hackney, Blanche,	Morgantown,		Music.
Haggerty, Walter Rex,	Fairmont,		Bar Law.
Haisiip, James Anderson,	Grafton,	Junior,	Diploma La
Hall, Florence Malinda,	Pruntytown,	Special.	
Hall, Septimius, Jr.,	New Martinsville,	Special.	C.E.
Hall, Arthur,	Grafton,	Junior,	M.E.
Hall, Oscar Lee,	Tate,	Special.	
Hall, Archie Carl Moses,	Buckhannon,	Second Year,	Medical.
Hall, Marguerite Spragg,	Morgantown,		Music.
Hall, Jesse Spurgin,	Morgantown,	Special,	
Hall, Martha Elizabeth,	Harrisville,		Music.
Hammer, Samuel Francis,	Connor, Pa.,	Junior,	B.S.C.E.
Hanna, Curtis Miller,	Charleston,	Special,	
Hanifan, Lyda,	Cubana,	Special,	
Hardwick, Daniel Boon,	Fort Gay,		Bar Law.
Hare, Hazel Helen,	Morgantown,		Music.
Harris, Anna E.,	Huntington,	Special.	
*Hart, Harry William,	Monroeville, O.,	Freshman,	B.S.
Hartmann, Jessie Margaret,	Burnt House,	Special.	
Haught, Benjamin Franklin,	Atwood,	Sophomore,	A.B.
Hawley, Bertha Sterling,	Fairmont,	Freshman,	A.B.
Hayes, Camille Katherine,	Morgantown,	Special.	

Hayes, Lizzie Gertrude,	Morgantown,		Choral Socie
Hedrick, Asa Addison,	Sink's Grove,	Special.	
Heermans, Beatrice,	Morgantown,		Music.
Helmboldt, George R.,	Monessen, Pa.,	Special.	M.E.
Hennen, Robert David,	Morgantown,	Junior,	B.S.C.E.
Henritze, Benson Price,	Welch,	Junior,	B.S.M.E.
Henshaw, Edgar C.,	Martinsburg,	Special,	Agr.
Hepburn, Nannie Katharine,	Piedmont,	Special,	
Herd, Charles Thomas,	Morgantown,	Senior,	LL.B.
Herd, Virginia,	Morgantown,		Music.
Herndon, Charles Shelby,	Welch,	Special.	Medical.
Herring, Mrs. Geo. A.,	Kingwood,	Special,	
Hertzler, Jacob Oswald,	Carlisle, Pa.,	Senior,	LL.B.
Hess, Henry Hunter,	Martinsburg,	Junior,	B.S.C.E.
Hess, Aubrey Franklin,	Morgantown,	Special.	
Hess, Ora Elizabeth,	Morgantown,		Music.
Higley, Ida Mary,	Clarksburg,	Special.	
Hill, Lawrence Benjamin,	McKim,	Junior,	A.B.
†Hilson, William,	Morgantown,		Music.
Hinman, Clark Frank,	Somerville, Mass.,	Freshman,	B.S.M.E.
Hodges, Wade Hampton,	Morgantown,	Junior,	A.B.
Hodges, Grace Mabelle,	Morgantown,		Music.
Hoeffler, John Baptist,	Clarksburg,		Bar Law.
Holle, Walter,	St. Clara,	Special,	Agr.
*Honecker, Benj. Stewart,	Wheeling,	Junior,	Diploma Law
*Hood, Edgar Forman,	Clarksburg,	Freshman,	A.B.
Hoult, Mary Jane,	Grafton,	Special.	
Hubbard, Beulah Brock,	Morgantown,	Special.	
Hudson, Jennie May,	Athens, Ohio,	Special.	
Humble, Christopher,	Parkersburg,	Special.	
Humphrey, E. J.,	Belleville,	Special,	Agr.
Hundley, Edward Everett,	Morgantown,	Special.	
Hunt, Everett Answorth,	Fairmont,	Special.	
*Hutchinson, Brooks S.,	Fairmont,	Freshman,	B.S.
Hutchinson, John Quincy,	Beckley,	Junior,	LL.B.
Huyett, John Burns,	Wheatland,	Special,	Agr.
Ice, Martha Byrd,	Grays' Flat,	Special,	
Ice, Dorothy,	Grays' Flat,	Special.	
Ingram, John Albert,	Fenton, Mich.,	Sophomore,	A.B.
Ingram, William Watson,	Congo,	Senior,	Diploma Law
Ireland, Bassil Watts,	Morgantown,	Special,	Medical.
Ireland, Addie Rosalie,	Morgantown,		Fine Arts.
Jackson, Stephen Goodlie,	Jane Lew,	Sophomore,	B.S.
Jenkins, Jessie,	Montrose, Pa.,	Freshman,	A.B.
Jennings, Maude Katharyne,	Morgantown,		Music.
Jividen, Averill Emerson,	Buffalo,		Bar Law.

†Deceased.

Jividen, Frank,	Buffalo,		Bar Law.
Johnson, Drusilla Victoria,	Cadiz, Ohio,	Special.	
Johnson, Charity Nelson,	Bridgeport,	Special.	
Johnson, Anna Hayes,	Morgantown,	Junior,	A.B.
Johnson, A. Emerson,	Fort Spring,	Special,	Agr.
*Johnson, George Delbert,	White Creek,	First Year,	Medical.
Johnson, Laura Dale,	Morgantown,		Choral Society.
Johnston, Elizabeth Gould,	Huntington,	Special.	
Johnston, Lucy Belle,	Morgantown,		Music.
Johnston, Charley Lockhard,	Mobley,		Bar Law.
*Jones, Ethel Belle,	Knottsville,	Freshman,	A.B.
Jones, Elbert,	Rivesville,		Veterinary Scienc
Jones, Elizabeth Jeannette,	Morgantown,		Music.
Jordan, Homer Garfield,	Morgantown,		Choral Society.
Joseph, Nell Ethyl,	Morgantown,		Music.
Kearney, Katharine,	Shepherdstown,	Special.	
Keely, John Stacy,	Charleston,	Senior,	A.B.
Keener, Beulah Blanche,	Morgantown,		Music.
Keister, John Claude,	Upper Tract,	Special.	
Kell, Septimus Jasper,	Welch,	Second Year,	Medical.
Kelley, Lulu Genevieve,	Morgantown,		Music.
Kelly, Orra M.,	Morgantown,	Special.	
Kelley, Ferdinand Timmel,	Morgantown,	Special.	
Kelly, Edna,	Morgantown,		Music.
Kennedy, James Albert,	Uniontown, Pa.,	Freshman,	B.S.C.E.
Kephart, Geo. Washington,	Rohr,	Special,	Agr.
Kiger, Reuben Alvin,	Sherrard,	Special,	C.E.
Kirkpatrick, Chester Davey,	Macdonald,	Special,	M.E.
Knabeshue, Edward Hanson,	Morgantown,	Junior,	A.B.
Knapp, Jas. Redmon Morton,	Paradise,		Bar Law.
Kubel, Simon,	New York City, N. Y.,		Bar Law.
Kunkle, Josephine Margaret,	Morgantown,	Special.	
Kunst, Frank Batson,	Pruntytown,	Junior,	A.B.
Lake, Jeannette,	Fairmont,	Special.	
Lang, Fuchsia,	Bridgeport,	Special.	
Langfitt, Ada Herilda,	Parkersburg,	Special.	
Lanham, George Conn,	Victoria,	Special.	
LaRue, Mary Gertrude,	Morgantown,	Special.	
LaRue, Ethel,	Morgantown,	Special.	
Larew, James Edgar,	Red Sul. Springs,	Junior,	B.S.C.E.
Largent, Robert Joseph,	Paw Paw,	Special.	
Lawler, Trueman Barton,	Fairmont,	Special.	
Lawrence, Benj. Franklin,	Bluefield,	Graduate,	A.M.
*Lawson, Herschel Wayne,	Morgantown,	Freshman,	A.B.
Lawson, Corbly Croner,	Simpson,		Bar Law.

Layton, Lula Eugenie,	Morgantown,		Music.
Lazzell, Neta Blanche,	Van Voorhis,		Fine Arts.
Lazzelle, Nora Jackson,	Morgantown,		Choral Society
*Leahy, Thomas,	Austinburg, Ohio.	Freshman,	B.S.C.E.
Lee, Mabel,	Clarksburg,	Special.	
Lee, George Guy,	Edgar,		Bar Law.
Lee, Mary Catherine,	Hutton, Md.,		Music.
Lemley, Gilbert Southey,	Mt. Morris, Pa.,	Senior,	B.S.C.E.
Lemley, Olive Blake,	Cassville,		Music.
Lewellyn, Elizabeth Valeria,	California, Pa.,	Senior,	A.B.
Lewis, Clarence Edward,	Savanah,	Special,	Agr.
Lewis, Laura Frances,	Aberdeen,	Sophomore,	A.B.
Lewis, Helen Marie,	Morgantown,		Music.
Light, Charles Porterfield,	Martinsburg,	Special,	Agr.
Lindsey, Anna,	St. George,	Special.	
Link, John William,	Duffields,	Sophomore,	A.B.
Linn, Robert,	Charleston,		Bar Law.
List, Hettie M.,	Wheeling,	Special.	
*Lloyd, Wylie Everett,	New Cumberland,	Freshman,	B.S.M.E.
Lohm, Albert Lafayette,	Grafton,	Special.	
Lopez del Valle, Antonio,	Toa Alta, Puerto,	Rico,	Bar Law.
Lough, Walter Gay,	Fairmont,	Freshman,	A.B.
Love, George,	Montgomery,		Bar Law.
Lowe, Gussie Belle,	Pine Grove,		Music.
Lucas, Arthur Mapel,	Morgantown,	Sophomore,	B.S.C.E.
Lucas, John Rennicks,	Shinnston,	Special.	
Lyons, Joseph William,	Charleston,	Senior,	A.B.
Lytle, Clara,	Parkersburg,	Special.	
Mace, Rosa,	Hacker's Valley,	Special.	
MacQuarrie, Hector Kenzie,	Wheeling,	Junior,	LL.B.
Madera, Irene Elizabeth,	Morgantown,		Music.
Madera, Minnie,	Morgantown,		Choral Society.
Mahone, Paul James,	White Sul. Sp'ngs,	First Year,	Medical.
Malamphy, Michael Joseph,	Cumberland, Md.,		Bar Law.
Manley, Mrs. R. L.,	Fairmont,	Special,	
Mann, Benjamin Franklin,	Ft. Spring,	Special.	Agr.
Mann, Thomas Freeland,	Ft. Spring,	Special,	Agr.
Maphis, Lillian,	Morgantown,		Music.
Marley, John Tilton,	Morgantown,		Choral Society
Marrs, Leola Ethel,	Huntington,	Senior,	A.B.
Marcum, John Roy,	Huntington,	Senior,	LL.B.
Marsh, Jos. Franklin,	Harrisville,	Sophomore,	A.B.
Marshall, Charles Winfield,	Fairview,		Bar Law.
Martin, Paul Heermans,	Morgantown,	Sophomore,	A.B.
Martin, Frank Cyrus,	Morgantown,	Special,	M.E.
Martin, Martha Ray,	Morgantown,		Choral Society.
Mason, John Wm., Jr.,	Fairmont,	Sophomore,	B.S.

Mason, Earle Dilworth,	Allegheny, Pa.,	Freshman,	B.S.C.E.
Mattson, Ellen,	Morgantown,		Music.
Maxwell, Daniel,	Triadelphia,	Special,	Agr.
Maxwell, Sarah,	Elm Grove,		Choral Society
Maxwell, Marian,	Morgantown,		Music.
McCarthy, Timothy James,	Fenton, Mich.,	Freshman,	B.S.Agr.
McCauley, Wm. Bernard,	Merrill, Mich.,	Junior,	Diploma Law
McClung, William E.,	Ft. Spring,	Special,	Agr.
McColloch, Abram,	Clinto,	Special,	Agr.
McCreery, M. Elsye,	Morgantown,		Choral Society
McCue, Anthony Fielding,	Persinger,	Sophomore,	LL.B.
McCutcheon, Royal Howard,	Morgantown,		Music.
McDonald,MarshallWoodrow,	Charles Town,	Junior,	B.S.C.E.
McEldowney, John Cochran,	New Martinsville,		Bar Law.
McGinnis, David Leroy,	Rocklick,	Senior,	LL.B.
McGinnis, Minnie Bell,	Rocklick,		Fine Arts.
*McJilton, John Perkins,	Sleepy Creek,	Freshman,	B.S.M.E.
McKinney, Jane Etta,	Fairmont,	Senior,	A.B.
*McMillen, Perry Wade,	Masontown,	Freshman,	B.S.C.E.
McMorrow, John,	Morley,		Bar Law.
McNeill, Chauncey St. Claire,	Morgantown,	Special,	Diploma Law
McNeill, Edward Wm.,	Morgantown,	Special,	Agr.
McNutt, John Dana,	Flatwoods,	Sophomore,	B.S.C.E.
McQuilkin, Dwight E.,	Shepherdstown,	Senior,	A.B.
Menefee, Mrs. Ida Florence,	Keyser,	Special.	
Mestrezat, Mary Helen,	Morgantown,		Music.
Meyer, Margaret Donley,	Wheeling,		Physical Cult
Millan, Russell Golden,	Mannington,	Junior,	B.S.M.E.
Miller, Wayne McCormick,	Morgantown,	Junior,	B.S.C.E.
Miller, Frances Livermore,	Wheeling,	Special.	
Miller, Dana Paul,	Fairmont,	Junior,	LL.B.
*Mitchell, Harbour,	Wheeling,	Freshman,	B.S.M.E.
Mockler, Robert Emmett,	Mannington,	Special.	
Moffett, William Francis,	Washington, Va.,		Bar Law.
Montgomery, Maude,	Parkersburg,	Special.	
Montgomery, Alma,	Mansfield, Ohio,		Music.
Moomau, Glenn Johnson,	Franklin,	Freshman,	Agr.
Moore, Shepherd W.,	Elwell,	Special,	Agr.
Moore, Everett Franklin,	Moundsville,	Junior,	Diploma Law.
Moore, Elizabeth Irvin,	Morgantown,	Special,	
Moore, Archibald,	Mannington,	Special.	Agr.
Moore, Susan Maxwell,	Morgantown,		Music.
Moreland, Ethel Finnicum,	Morgantown,		Choral Society
Morgan, Mont Earle,	Fairmont,	Senior,	LL.B.
Morgan, Albert Sidney,	Poca,	Special.	Agr.
Morgan, Thomas Atkeson,	Poca,	Special,	Agr.

Morgan, Sara,	Fairmont,	Special,	
Morgan, Mary Ellen,	Lorentz,	Special.	
Morris, Olive Hite,	Morgantown,	Special.	
Morris, Nellie Delia,	Morgantown,	Sophomore,	A.B.
Morris, Wilfred Armstrong,	Connellsville, Pa.,	Sophomore,	B.S.C.E.
Moser, William Calvert,	Smithfield, Pa.,	Special,	Medical.
Muldoon, John Dement,	Shepherdstown,	Senior,	A.B.
Murphy, James Scott,	Morgantown,	Senior,	B.S.M.E.
Myers, Clifford,	Mason,	Sophomore,	A.B.
Neal, Ada May,	Parkersburg,	Special.	
Neely, John Ritchey,	Allegheny, Pa.,	Special.	M.E.
Neil, Grace Gardner,	Morgantown,	Special,	
Neil, C. Edmund,	Morgantown.	Special.	
Neff, Carl Webster,	Cumberland, Md.,		Bar Law.
Nestor, Ira Francis,	Auvil,	Freshman,	A.B.
Newman, Dora Lee,	Glendale,	Special.	
Newman, Isa Etta,	Morgantown,		Music.
Nulton, Harold Irving,	Washington, O,,	Freshman,	B.S.M.E.
Nuzum, Valle Virginia,	Morgantown,		Choral Society.
Nuzum, Carrie,	Morgantown,		Choral Society.
Nydegger, Allen Carleton,	Elkins,	Special,	C.E.
O'Hara, Thomas Michael,	Gladesville,	Senior,	LL.B.
Oldson, Bessie Miller,	Morgantown,		Music.
Owen, Morgan,	Summit Hill, Pa.,	Senior,	Diploma Law.
Pabody, Earle Augustus,	Huntington,	Senior,	B.S.C.E.
Page, Marjorie Frances,	Rochester, N. Y.,		Music.
Page, Dean Kirkham,	Rochester, N. Y.,		Music.
Page, Belle Kirkham,	Rochester, N. Y.,		Choral Society.
*Parker, Walter Miller,	Huntington,	Freshman,	A.B.
Parker, Goldie Love,	Morgantown,		Music.
Parkhill, Mary Louisa,	New Haven, Pa.,	Special.	
Parriott, Jas. Deforis,	Cameron,		Bar Law.
Parsons, Francis Alan,	Piedmont,	Special,	Medical.
Parsons, Dickson Ward,	Morgantown,	Senior,	A.B.
Parsons, Mary Louise,	Piedmont,		Music.
Patterson, Beatrice,	New Haven, Pa.,	Special.	
Patterson, Marjorie Bonner,	Morgantown,		Music.
*Pearcy, Chas. Lewis,	Morgantown,	First Year,	Medical.
Peck, Elizabeth Tapp,	Morgantown,	Senior,	A.B.
Peddicord, Lindsey B. H.,	Morgantown,		Bar Law.
Peoples, Dana Hooland,	Pomeroy, Ohio,		Bar Law.
Perry, William Oswald,	Welch,		Bar Law.
Peters, L. E.	Clarksburg,	Special.	
Pettit, Charles Sherman,	Morgantown,	Junior,	Diploma Law.
Pettit, Gay Brannon,	Morgantown,		Music.
Peyton, S. M.,	Huntington,	Special.	

*Phillips, Annie Read,	Charleston,	Freshman,	A.B.
Phillips, Margaret Hannah,	Smock, Pa.,	Special.	
Pierce, Olive Dwight,	Morgantown,		Music.
Pixler, John Vandervort,	Morgantown,		Bar Law.
Pomeroy, Gertrude May,	Morgantown,		Music.
Pool, Clifford Alexander,	Manor, Pa.,	Freshman,	B.S.C.E.
*Porterfield, Geo. Verrill,	Charles Town,	Freshman,	A.B.
Post, Arthur Lee,	Good Hope,	Graduate.	
Post, Arthur Trask,	Jarvisville,	Second Year,	Medical.
Post, Clarence,	Fairmont,	Sophomore,	A.B.
Post, Martha Louise,	Good Hope,	Special.	
Pratt, Oliver Clinton,	Beechgrove,	Special,	M.E.
Price, Richard McSherry,	Charleston,	Junior,	LL.B.
Prichard, John Guy,	Rivesville,	Junior,	LL.B.
Prickett, Evelyn,	Catawba,	Special.	
Priest, Robert Peel,	Franklin,	Special.	
Protzman, Dessie,	Morgantown,	Special.	
Pugh, Eliza Jane,	Morgantown,	Freshman,	A.B.
Purinton, John Alden,	Morgantown,	Senior,	LL.B.
Purinton, Helen Elizabeth,	Morgantown,		Music.
Purinton, Mary Lyon,	Morgantown,		Music.
Ragland, Howard Nicholas,	Logan,		Bar Law.
Ralston, William Curtis,	Willow,	Special,	Agr.
Ramage, Chesney Macaulay,	Fairmont,	Sophomore,	A.B.
Ramage, Pansee Berle,	Fairmont,		Music.
Raspillaire, Emile Alfred,	Morgantown,		Music.
Ray, Marguerite,	Morgantown,		Music.
Reed, Carrie Moore,	Morgantown,		Choral Soci
Reger, Roy,	Rural Dale,	Senior,	LL.B.
*Reger, David Bright,	Rural Dale,	Freshman,	B.S.C.E.
Reiley, Earle Walton,	Hinton,	Junior,	B.S.C.E.
Reiner, Ada Eleanor,	Morgantown,		Choral Soci
Reinheimer, Clara May,	Fairmont,	Special.	
Rex, Edward Geary,	Ingram, Pa.,	Special,	Agr.
Reynolds, Harris Aquilla,	Holden,	Special,	
Reynolds, Mabel Curry,	Morgantown,	Graduate,	A.M.
Reynolds, Inez Broherd,	Flemington,	Special.	
Reynolds, Wayland Fuller,	Flemington,	Special.	
Richards, Edgar Ulyssus,	Morgantown,	Junior,	B.S.M.E.
Riffe, Jerome Alfred,	Hinton,	Special.	
Riggs, Wilfred,	Ben's Run,	Special,	Agr.
Rightmire, Edna,	Morgantown,	Sophomore,	A.B.
Riley, Richard Mitchell,	Buffalo, N. Y.,	First Year,	Medical.
Ritchey, Clara Grace,	Central City,	Special.	
Ritz, John Stonewall Jackson,	Wheeling,		Bar Law.

Ritz, John Eldon,	Huntington,		Bar Law.
Roach, Donna Marie,	Athens, Ohio,		Fine Arts.
Robinson, Wilbert Howard,	Millsboro,	Sophomore,	B.S.C.E.
Robinson, Jed Waldo,	Grafton,	Senior,	A.B.
Rohr, Cecil St. Lawrence Ray,	Rohr,		Bar Law.
Romine, Aubrey Laten,	Johnstown,	Special.	
Rose, Herschel Hampton,	Mannington,	Junior,	LL.B.
Ross, John Gilmore,	Morgantown,	Graduate,	C.E.
Ross, Nellie May,	Hedgesville,	Special.	
Ruble, William Jefferson,	Ruble, Pa.,	Special.	
Ruble, Mary Jennie,	Smithfield, Pa.,	Special.	
Ruble, Annie M.,	Fairchance, Pa.,		Music.
Ruhl, Frederick Philip,	Milford, Del.,	Special,	Agr.
*Russell, John Manning,	Loveville, Md.,	Freshman,	B.S.C.E.
Rust, Marshall Wormley,	Charles Town,	Special.	
Sadler, Bessie Julia,	Point Marion, Pa.,		Music.
Sage, Richard Ward,	Sistersville,	Special.	
Sanders, Helen Maud,	Randall,		Music.
*Saunders, Lawrence Davis,	Randall,	Freshman,	B.S.C.E.
Sayre, Martin Luther,	Evans,	Sophomore,	B.S.C.E.
Scherr, Harry Garfield,	Charleston,	Senior,	Law Diploma.
Schmidiger, Bertha,	Morgantown,		Music.
Schmidt, Frederick,	Morgantown,		Music.
Schmidt, Caroline,	Morgantown,		Music.
Schrader, Henry Maxwell,	Lubeck,	Junior,	B.S.C.E.
Scott, Jessie,	West Newton, Pa.,	Special.	
Seay, Samuel Bourne,	Wheeling,		Bar Law.
Seibert, Cleveland McSherry,	Martinsburg,	Senior,	Diploma Law.
Selby, Lloyd Blaine,	Morgantown,	Freshman,	B.S.M.E.
Sexton, Harry Bernard,	Cincinnati, Ohio,	Junior,	Diploma Law.
Shafer, W. C.,	Fairmont,	Special.	
Shannon, Thomas H.,	Oceana,	Special.	
Sheetz, Grace,	Keyser,	Special.	
Shepler, Katharine Emma,	Ruffsdale, Pa.,	Special.	
Shinn, Isola,	Clarksburg,	Special.	
Shinn, Fred Lawrence,	Shinnston,	Junior,	Law Diploma.
Shirkey, Sydney Staunton,	Malden,	Freshman,	A.B.
Shriver, Ina Rightmire,	Charleston,		Fine Arts.
Shull, Claude Lareux,	Romney,	Special.	
Sigwart, Mary Ottoff,	Morgantown,		Music.
Simmons, Walter Richard,	Churchville,	Sophomore,	LL.B.
Simms, Henry,	Huntington,	Senior,	LL.B.
Simpson, Julia Ellen,	Morgantown,	Special.	
Sisler, Millard Talford,	Morgantown,		Choral Society.
Sivey, Letta Agnes,	Morgantown,		Physical Cultu
Skinner, Henry Clay,	Pliny,	Special,	Agr.

Smith, Anna Elisa,	Vienna,	Special.	
Smith, William Winfred,	Morgantown,	Senior,	LL.B.
Smith, Clifford Addison,	Meadville,	Special,	Medical.
Smith, Lee Allan,	Fairchance, Pa.,	Freshman,	A.B.
Smith, Cilda Langfitt,	Fairmont,	Freshman,	A.B.
Smith, Ada Blanche,	Fairmont,	Special.	
Smith, Thomas,	Weston,	Special,	Agr.
Smith, Lillian Ballard,	Charleston,	Special.	
Smith, Etley Price,	Kenova,	Second Year,	Medical.
Smith, Ira Louis,	Uniontown, Pa.,	Junior,	Diploma Law.
Smith, Helen Barrett,	Charleston,	Special.	
Smith, Frank Onvin,	Charleston,	Special.	
Smith, Lucien Philip,	Morgantown,		Music.
Smith, Clara Martha,	Morgantown,		Music.
Smith, Bertha Jane,	Sistersville,		Music.
Smitley, Jennie Barnes,	Eldora,		Music.
Snee, Wm. Jefferson,	Morgantown,		Choral Society
Snee, Grace Martin,	Morgantown,		Music.
Snider, Earl Bailie,	Uniontown, Pa.,	Senior,	B.S.C.E.
Snider, Grace,	Point Marion, Pa.,		Music.
Snyder, Louis Clarke,	Laurel Point,	Senior,	A.B.
Somerville, John Ferguson,	Farmington,	Special,	C.E.
South, Winifred Orienta,	Morgantown,		Choral Society
Southern, John Cornelius,	Adamston,		Bar Law.
Spears, Harry Ferguson,	Elm Grove,	Freshman,	B.S.M.E.
Spence, Ross,	Morgantown,		Choral Society
Spragg, Leon White,	Wheeling,	Freshman,	B.S.C.E.
Springston, C. D.,	Spencer,	Special.	
Staats, Georgie Lee,	Evans,	Special.	
Staats, Edgar R.,	Evans,	Special.	
Stalnaker, Myrtle Nannie,	Charleston,	Special.	
Stalnaker, Harriet Talbott,	Martinsburg,	Junior,	A.B.
Starcher, Geo. Columbus,	Berlin,	Special,	Agr.
Stathers, Birk Smith,	Clarksburg,	Junior,	A.B.
*Staubley, Ralph Franklin,	Martinsburg,	Junior,	Diploma Law.
Steenbergen, John Harness,	Beale,	Freshman,	A.B.
Stephens, Rose Cree,	Blacksville,	Special.	
Stewart, Jones Abraham,	New York, N. Y.,	Senior,	B.S.M.E.
Stewart, Mattie Anne,	Morgantown,	Special.	
Stone, Helene Louise,	Morgantown,		Music.
Stout, Benjamin Franklin,	Parkersburg,	Senior,	Diploma Law.
Strader, Wilbur Jackson,	Beverly,	Junior.	LL.B.
Streator, Helen,	Washington, Pa.,	Special.	
Stribling, Carrie,	Romney,		Music.
Strickler, Robert Parvin,	Parsons,	Sophomore,	A.B.
Stump, May Deusenberry,	Charleston,		Fine Arts.

Sturgiss, Pansy Moore,	Point Marion, Pa.,		Music.
Sturm, Marshall Lee,	Glover Gap,		Bar Law.
Stutzman, Lena,	Selbyville,	Special.	
Sutherland, Ida Katharine,	Morgantown,		Music.
Swan, Hazel,	Morgantown,		Music.
Swiger, Arlen Goff,	Dola,	Special.	
Swindler, George Raymond,	Morgantown,		Bar Law.
Tait, Sara Cope,	Morgantown,	Special.	
Talkington, David Lee,	Middlebourne,	Second Year,	Medical.
Taylor, Everett Ray,	Morgantown,	Second Year.	Medical.
Taylor, Marvin Sullins,	Welch,		Bar Law.
Taylor, Milton H.,	Masontown,	Special,	Agr.
Taylor, Shelby Ethbert,	Morgantown,	Special,	C.E.
Taylor, Blake,	Elkins,	Special,	C.E.
Taylor, Florence Naomi,	Holliday's Cove,		Music.
Teets, Doctor Dee,	Buckhannon,	Special,	C.E.
Tennant, Odell Scott,	Morgantown,	Junior,	Diploma Law.
Thacker, E. E.,	Poca,	Special,	Agr.
Theodoroff, M. G. Pope,	Wheeling,	Senior,	LL.B.
Thomas, Cecilia,	Chicago, Ill.,		Music.
Thompson, James Orwin,	Charleston,	Special,	Agr.
Thompson, Clara Dutton,	Morgantown,		Choral Society
Thralls, William Francis,	Blacksville,		Bar Law.
Thurmond, Walter Rippetoe,	Thurmond,	Senior,	A.B.
Titus, Lena Mabel,	Greensboro, Pa.,		Music.
Townshend, Earle Veitch,	Morgantown,	Senior,	Diploma Law.
Townshend, Margaret E.,	Morgantown,		Music.
Townshend, Mattie,	Morgantown,		Choral Society
Tracy, Clarence Eustace,	Wolf Creek,	Special,	C.E.
Treat, Helen Loveland,	Morgantown,		Music.
Trippett, Adah,	Kingwood,	Special.	
Tucker, W. A.,	Cassville,	Special.	
Tuckwiller, Jesse Ray,	Lewisburg,	Junior,	A.B.
Tuckwiler, Samuel Slater,	Lewisburg,	Junior,	B.S.M.E.
Tuckwiler, Frank Watts,	Lewisburg,	Senior,	LL.B.
Turner, David Fleming,	Blennerhessett,	Senior,	LL.B.
Turner, Ella May,	Shepherdstown,	Sophomore,	A.B.
Turner, Mary Rebecca,	Morgantown,		Music.
Turrell, Amy Waddell,	Swissvale, Pa.,	Special.	
Turrell, Marion Charles,	Swissvale, Pa.,	Special.	
VanBuskirk, Guy Waite,	Elkins,		Music.
Vance, Linnie,	Morgantown,	Special.	
Vandale, J. A. A.,	Spencer,	Special.	
VanVoorhis, Haris Morris,	Morgantown,		Music
Venner, Orlin Hale.	Corydon, Ind.,	Senior,	A.B.
Viquesney, Jules August,	Belington,		Bar Law.

Waddell, Margaret Lynne,	Brandonville,	Special.	
*Wagner, Martin Luther,	Toronto, Ohio,	First Year.	Medical.
Walton, Joseph Lee,	Markes,		Bar Law.
Ward, Emma,	Lee Belle,		Music.
Waring, James Cash,	Morgantown,	Special.	
Warner, Flick,	Circleville,	Special.	
Warrick, Charles Frederick,	Morgantown,		Fine Arts.
Warrick, Louise B.,	Morgantown,		Choral Society
Waters, Gladys Mary,	Morgantown,		Music.
Watkins, Grace Minette,	Grafton,	Special.	
Watson, Clyde Emil,	Kingwood,	Senior,	A.B.
Waychoff, Roy Johnson,	Waynesburg, Pa.,	Senior,	LL.B.
*Wayman, Charles Ancelle,	Fairmont,	Freshman,	B.S.M.E.
Wayt, William Henry,	Grafton,	Junior,	A.B.
*Weaver, Mabel Jane,	Morgantown,	Freshman,	A.B.
Wells, Chas. Evans, Jr.,	Wheeling,	Junior,	B.S.C.E.
Welsh, Morgan Elmon,	Rock City Falls, N Y.,	Special.	
Werner, Emma,	Morgantown,		Music.
West, John Thomas,	Cassville,	Sophomore,	B.S.C.E.
Westfall, Burn,	Hundred,		Bar Law.
Wetherell, Joseph,	Parkersburg,	Special.	
Whaley, Baxter Monroe,	Finch,	Sophomore,	A.B.
Whitham, Rachel Elizabeth,	Morgantown,		Fine Arts.
White, Prescott Cushing,	Morgantown,	Junior,	LL.B.
White, Stella Sexton,	Morgantown,	Special.	
White, C. M. Carroll,	St. John's, N. F.,	First Year,	Medical.
Wilkerson, Orla McCombs,	Wolf Run,	Sophomore,	A.B.
Williams, Howard E.,	Savanah,	Special,	Agr.
Williams, Elza Young,	Williamson,	Senior,	B.S.
Williams, Elizabeth Kyle,	Wheeling,	Special.	
Willis, Dennis Martin,	Morgantown,	Senior,	A.B.
Willis, Annarie,	Bridgeport,	Special.	
Wilson, Clarissa Cochran,	Morgantown,		Music.
Wilson, Otis Guy,	Harrisville,	Junior,	A.B.
*Wilson, James Elmer,	Mannington,	Freshman,	B.S.C.E.
Wilson, William Edwin,	Charleston,		Bar Law.
Wilson, James Benjamin,	Mannington,	Special,	Agr.
Winter, Hannah Margaret,	Trail Run, Ohio,		Music.
Winter, Gertrude Helene,	Trail Run, Ohio,		Fine Arts.
Wisner, Elizabeth,	Morgantown,		Physical Culture
Wood, Frederick Gordon,	Pratt,	Senior,	B.S.C.E.
Wood, Lucy Berkshire,	Morgantown,	Special.	
Wood, Ruth Cassandra,	Morgantown,		Physical Culture
Wood,Blanche,	Morgantown,		Physical Culture
Woofter, Herbert Addison,	Parkersburg,	Sophomore,	B.S.M.E.
*Yanosky, Felix,	Longacre,	Freshman,	B.S.

*Yeardley, Lawrence Cook,	Parkersburg,	Freshman,	B.S.M.E.
Yoke, Grace Eliza,	Morgantown,	Special.	
Yonker, Jacob Alfred,	Mason,	Special,	M.E.
Young, Houston Goff,	Craigmoor,	Junior,	LL.B.
Young, Addie,	Herold,	Special.	
Yost, Ellis Asby,	Morgantown,	Special.	
Zilliken, Bertha Katrine,	Wellsburg,	Special.	
Zinn, Wm. Davidson,	Philippi,	Special,	Agr.
Zinn, Aubrey Lee,	Philippi,	Special,	Agr.

PREPARATORY AND COMMERCIAL SCHOOLS

Allender, Marie Pearl,	Morgantown,	1st Year.
Allender, Arthur Nelson,	Grafton,	Commercial.
Anderson, Jerome Waldo,	Winfield,	2nd year.
Baker, Grace,	Morgantown,	Physical Culture.
Bailey, Ruth,	Morgantown,	Physical Culture.
Barrickman, Mary Etta,	Morgantown,	Commercial.
Batten, Henry Clay,	Webster Springs,	4th year.
Becker, Thos. Henry, Jr.,	Bluefield,	1st year.
Beckett, Artie May,	Morgantown,	Commercial.
Bell, Alexander Deacon,	New Cumberland,	3rd year.
Biddle, Milton Scott,	Morgantown,	1st year.
Biddle, Grace Carry,	Morgantown,	Special.
Black, Minnie,	Oxford,	Commercial.
Blizzard, Reese, Jr.,	Parkersburg.	1st year.
Boggs, Nannie,	Gassaway,	Commercial.
Boughner, Jennie,	Morgantown,	1st year.
Bower, George Mortimer,	Morgantown,	1st year.
Bowman, Claude Masters,	Franklin,	Commercial.
Boyde, Jessie Mabel,	Morgantown,	Commercial.
Boydston, Fred Leonidas,	Fairmont,	4th year.
Brockmeyer, James Alexander,	Morgantown,	1st year.
Brooke, Francis Jno. Taliferro,	Morgantown,	1st year.
Brown, George Whitaker,	Wheeling,	3rd year.
Brown, Virginia,	Morgantown,	Physical Culture.
Brown, Margaret Elinor,	Kingwood,	2nd year.
Brown, Iris,	Morgantown,	Physical Culture.
Brown, Lucile,	Morgantown,	Physical Culture.
Brown, Nellie,	Morgantown,	Physical Culture.
Buchanan, Anita Minerva,	Berkeley Springs,	Commercial.
Bufano, Garibaldi,	Connellsville, Pa.,	1st year.
Burchinal, Claude Howard,	Pt. Marion, Pa.,	1st year.
Burns, Corwin Sage,	Morgantown,	2nd year.
Byers, Karl Davis,	Grafton,	4th year.
Capehart, Jessie Mable,	Morgantown,	Commercial.
Caples, Helen,	Morgantown,	Physical Culture.

Carden, David Lamont,	Zela,	1st year.
Carson, Frank Leslie,	New Cumberland,	3rd year.
Castiaux, Edgar,	Morgantown,	Special.
Cather, Wilber Earl,	Grafton,	3rd year.
Chadwick, Samuel Grove, Jr.,	Morgantown,	Commercial.
Chadwick, Geo. Sturgiss,	Morgantown,	2nd year.
Coda, John Grady,	Morgantown,	2nd year.
Cohen, Wilkie,	Clarksburg,	1st year.
Cole, Otis Oscar,	Morgantown,	4th year.
Comley, Ella Bertha,	Morgantown,	Special.
Compton, Henry Tomlinson,	Morgantown,	2nd year.
Coombs, Clyde Francis,	Easton,	1st year.
Coombs, Edith,	Morgantown,	Physical Culture.
Coombs, Jas. Lawrence,	Beechwood,	1st year.
Coplin, Nancy,	Boothsville,	3rd year.
Corbin, Grover Cleveland,	Ellenboro,	1st year.
Corbin, Luster Lee,	Ellenboro,	Special.
Core, Rebecca,	Cassville,	1st year.
Core, John Lee,	Morgantown,	2nd year.
Crow, Eugene Camden,	Ripley,	1st year.
Cummins, Carroll Elbridge,	Washington,	4th year.
Davenport, Arthur Thistlewood,	Charles Town,	4th year.
Davis, Gail,	Van Voorhis,	1st year.
Davis, Ralph,	Morgantown,	2nd year.
*Davis, Fred Wade,	Morgantown,	1st year.
Debrocq, Dennise,	Morgantown,	Commercial.
Demain, Ralph Fairchild,	Morgantown,	1st year.
Dent, Gaylord Hess,	Morgantown,	Commercial.
Dixon, George Ewart,	Macdonald,	2nd year.
Dunbar, David Berkley,	Morgantown,	Commercial.
Dyer, John Aloysius,	Weston,	3rd year.
Estill, Davis Hudson,	Charleston,	2nd year.
Feller, Charles Victor,	Martinsburg,	3rd year.
Fisher, Mary Ruth,	Morgantown,	Physical Culture.
Fitch, Margaret,	Morgantown,	Physical Culture.
Fitch, Jessie Johnson,	Morgantown,	Special.
Fitzwater, John Roger,	Gad,	2nd year.
Fleming, John Amos,	Cassville,	1st year.
Fluharty, Monford,	Rivesville,	1st year.
Foreman, Laurence,	Morgantown,	3rd year.
Francis, Millie Rose,	Pt. Marion, Pa.,	1st year.
Fravel, James Stewart,	Poca,	1st year.
Frazee, Austin Augustine,	Watsondale, Pa.,	2nd year.
Fries, Lorena Mabel Lee,	Berkeley Springs,	4th year.
Garnsey, Orace Betts,	Waterbury,Conn.,	2nd year.
Garrison, Norman Morris,	Morgantown,	1st year.

*Deceased.

Gidley, Earnest,	Morgantown,	Commercial.
Goldbarth, Irvin Strauss,	Charleston,	4th year.
Gorby, Thomas David,	Majorsville,	Special.
Green, Sherwood Seeley,	Morgantown,	1st year.
Gregg, Edward Thomas,	Aspinwall, Pa.,	2nd year.
Gregory, David Tamblyn,	Webster Springs,	1st year.
Griffin, Harry,	Morgantown,	3rd year.
Griffin, Bertha Alice,	Morgantown,	1st year.
Griffin, Mayme Lucile,	Morgantown,	2nd year.
Hall, Roy Olney,	Alice,	3rd year.
Hall, Sheffey William,	Charleston,	1st year.
Hall, Leslie,	Morgantown,	Commercial.
Hall, Willie Glenn,	Morgantown,	1st year.
Hall, Eva Blanche,	Dunkard, Pa.,	Special.
Hall, Frank,	Marion,	1st year.
Hall, Guy Allen,	Morgantown,	Commercial.
Hall, Ida Pauline,	Morgantown,	1st year.
Handley, Robert Arbuckle,	Lewisburg,	Special C.E.
Hanna, James Alexander,	Asbury,	1st year.
Harding, Harry Wilmot,	Foxburg, Pa.,	1st year.
Harding, Vera DeWoody,	Foxburg, Pa.,	Special.
Harris, Bessie Lee,	Morgantown,	2nd year.
Hartigan, John Marshall,	Morgantown,	1st year.
Hartley, Guy Baxter,	Uniontown, O.,	3rd year.
Hawkins, Elsie Sueviena,	Morgantown,	Special.
Hawkins, Alexander Leroy,	Clarksville, Pa.,	1st year.
Haworth, Samuel Vinton,	Huntington,	1st year.
Hayes, Frances,	Morgantown,	Physical Culture.
Hays, Matthew Ewing,	Glenville,	1st year.
Headley, Julius Byron,	Brock, Pa.,	3rd year.
Heltzen, William Stanley,	Davis,	1st year.
Henderson, Miriam Esther,	Mt. Morris, Pa.,	Commercial.
Herd, Frank,	Morgantown,	2nd year.
Hess, James Emory,	Morgantown,	Commercial.
Hess, James Ellsworth,	Morgantown,	1st year.
Hinerman, Edward Maywood,	Cameron,	1st year.
Hodges, Mabel Clare,	Morgantown.	4th year.
Hodges, Eliza Pearl,	Morgantown,	4th year.
Hornbrook, Theodore, Jr.,	New Martinsville,	Commercial.
Hoffman, John Henry,	Morgantown,	2nd year.
Holden, Fleming Howell,	Clarksburg,	1st year.
Holland, Clayton C.,	Uffington,	2nd year.
Hundley, John Palmer,	Masontown,	2nd year.
Hundt, Herman August,	Wheeling,	3rd year.
Hunt, Wm. French,	Dunkard, Pa.,	3rd year.
Hunter, Iris Fayne,	Morgantown,	Commercial.

Hurxthal, Josie Morton,	Ashcamp,	Commercial.
Jacobs, Virginia,	Morgantown,	Physical Culture.
Jamison, Jessie Lee,	Morgantown,	1st year.
Jenifer, Bessie,	Morgantown,	Physical Culture.
Jennings, Lettie,	Morgantown,	Commercial.
Johnson, Warren W.,	Meadowville,	1st year.
Kammerer, Rose,	Morgantown,	Commercial.
Kell, Annie Maye,	Morgantown,	1st year.
Kinderman, Ralph Mason,	Morgantown,	1st year.
King, Benjamin Walter,	McMechen,	4th year.
Kislig, Charles,	New Martinsville,	2nd year.
Krebs, Leslie Walter,	New Martinsville,	4th year.
Lance, Denzle Roscoe,	Overfield.	1st year.
Lantz, John Scott,	Aurora,	Commercial.
Lantz, Pierce Byron,	Blacksville,	1st year.
Latshaw, Benjamin John,	Parkersburg,	1st year.
Lawson, Mollie,	Morgantown,	Physical Culture.
Leavitt, Charles Ernest,	Belleville.	2nd year.
Lemaire, Eugenie,	Morgantown,	1st year.
Lemley, Grover Cleveland,	Mt. Morris, Pa.,	2nd year.
Lingamfelter, Charles Brown,	Martinsburg,	Commercial.
Livengood, Karl Hayden,	Everson, Pa.,	1st year.
Long, Anna Dora,	Morgantown,	2nd year.
Lopez, Ramon,	Porto Rico,	1st year.
Lynch, Richard Vance,	West Milford,	1st year.
Madera, Jessie May,	Morgantown,	Commercial.
Madera, David Guseman,	Morgantown,	1st year.
Marple, Festus,	Morgantown,	2nd year.
Marple, Audry,	Morgantown,	1st year.
Martin, Earl William,	Morgantown,	Commercial.
Martin, Ralph Bartlett,	Parkersburg,	2nd year.
Mason, Claude Hutchinson,	Fairmont,	1st year.
Maxwell, Nettie,	Grafton,	Commercial.
McCombs, Edgar Pearl,	Sherrard,	4th year.
McCormick, Carlyle,	Morgantown,	1st year.
McCrum, Summers Daily,	Aurora,	1st year.
McCullough, Jennie Louise,	Mole Hill,	1st year.
McCutcheon, Merle,	Triadelphia,	2nd year.
McGinnis, Benj. Franklin,	Ellenboro,	1st year.
McKeel, Paul Leech,	Wingo, Ky.,	2nd year.
McKeever, Effie Lucile,	Morgantown,	Commercial.
McLaughlin, Frederick Forest,	Marlinton,	Commercial.
McMillen, Ethel May,	Masontown,	Special.
McNeill, Roland Karl,	Morgantown,	1st year.
Mealy, Effie Eugene,	Oakland, Md.,	1st year.
Mealy, James Gordon,	Morgantown,	1st year.
Meikle, Walter,	Pittsburg, Pa.,	2nd year.

Mestrezat, Jean Paul,	Morgantown,	1st year.
Miller, Calvin Ellsworth,	West Middletown, Pa.,	1st year.
Miller, Goldie,	Morgantown,	Physical Culture.
Miller, James Clifton,	Morgantown,	1st year.
Moon, Charles,	Morgantown,	2nd year.
Morris, Samuel John,	Morgantown,	2nd year.
Morss, Hume,	Camden, N. Y.,	2nd year.
Moser, Abraham Thomas,	Smithfield, Pa.,	Commercial.
Mountz, George Calvin,	West Alexander, Pa.,	2nd year.
Nash, James Henry,	Charleston,	1st year.
Naylor, Paul Barton,	Oakland, Md.,	2nd year.
Neville, Robert Albert,	Dawson, Pa.,	Special M. E.
Nickell, James Madison,	Nickell's Mills,	Commercial.
Older, Waldo Hampton,	Bancroft,	Commercial.
Ollsen, Lisle De Forest,	Clarksburg,	1st year.
Osterberg, Axel Verner,	Eskilstuna, Sweden,	1st year.
Owens, William Thomas,	Clarksburg.	1st year.
Parker, George,	Morgantown,	1st year.
Paul, Will Emery,	Charleston,	2nd year.
Pearcy, Earl,	Morgantown,	3rd year.
Pifer, Clarence Bishop,	Valley Furnace,	1st year.
Pixler, Goldie Maud,	Morgantown,	1st year.
Pixler, Walter William,	Morgantown,	1st year.
Pollock, John Samuel,	Lofferty, Ohio,	1st year.
Porterfield, Philip Terrill,	Charles Town,	Commercial.
Post, Porter Wallace,	Jane Lew,	3rd year.
Posten, Elizabeth,	Morgantown,	Physical Culture.
Potter, Henry Eric,	Morgantown,	Commercial.
Powell, Georgia,	Morgantown,	Commercial.
Price, George Washington,	Uffington,	2nd year.
Ramage, Tom,	Connellsville, Pa.,	3rd year.
Ramsey, Robert Jefferson,	Blennerhessett.	1st year.
Ramsey, Thera Ada,	Morgantown,	1st year.
Reed, Roy Frederick,	Berkeley Springs,	2nd year.
Reiner, Phinny Porter,	Morgantown,	4th year.
Reiner, Pearl Louise,	Morgantown,	2nd year.
Richmond, Orrestus Albert,	Silver Hill,	1st year.
Rightmire, Beulah,	Morgantown,	1st year.
Robinson, John Henry,	New Martinsville,	3rd year.
Rogers, Chester Prince,	Wheeling,	4th year.
Rogers, Mary,	Morgantown,	Physical Culture.
Rohr, Lonnie Bune,	Morgantown,	Commercial.
Rohr, Grover Jackson,	Morgantown.	1st year.
Ross, Anna,	Dunkard, Pa.,	1st year.
Ross, Charles Burt,	Morgantown,	3rd year.
Ross, Donald Gordon,	Morgantown,	4th year.

Ryan, Lonnie Watterson,	Morgantown,	3rd year.
Sammons, William Phillips,	Calis,	2nd year.
Sanders, Herbert Watts,	Sanders,	3rd year.
Sanders, Ola,	Cassville,	Commercial.
Sapp, William Creed,	Gladesville,	Commercial.
Sayre, Jessie,	Ripley,	Special.
Schmidt, Marie,	Morgantown,	Physical Culture.
Scott, Halleck McGinnis,	Beckley,	3rd year.
Scott, Clyde Hutchinson,	Morgantown,	1st year.
Scott, Pearl,	Pennsboro,	Special.
Sheets, Earl Wooddell,	West Milford,	2nd year.
Sheppard, Creedy Collins,	Gandeeville.	3rd year.
Shields, Dudley,	Parkersburg,	4th year.
Shrader, Lucretia,	Harrisville,	1st year.
Shuttleworth, Mary,	Morgantown,	Physical Culture.
Shuttleworth, Jessie Edith,	Morgantown,	Physical Culture.
Sigwart, Martha,	Morgantown,	Physical Culture.
Sisler, Frank Herbert,	Morgantown,	2nd year.
Smell, Opal,	Morgantown,	Physical Culture.
Smith, James Henry,	Morgantown,	1st year.
Smith, Charles Julius,	Morgantown,	4th year.
Smith, James Garfield,	Charleston,	1st year.
Sonneborne, Henrietta,	Morgantown,	Physical Culture.
Spiker, Claud Carl,	Herring,	Special.
Stannard, Urban Carden,	Webster Springs,	1st year.
Steele, Robert Morton,	Pickaway,	1st year.
Steele, Samuel Charles,	Morgantown,	2nd year.
Stender, Joseph John,	New Martinsville,	Commercial.
Stentz, Roy Alvin,	Gans, Pa.,	Commercial.
Stewart, Wade Hampton,	Parkersburg,	1st year.
Stone, William Douglas,	Morgantown.	Commercial.
Stuart, Victor Hudkins,	Philippi,	1st year.
Sturgiss, David Carroll,	Morgantown,	1st year.
Sturgiss, William Howard,	Morgantown,	2nd year.
Sturgiss, Anna Gans,	Morgantown,	Commercial.
Sundmacker, Hans William,	Morgantown,	1st year.
Taylor, Mary Elizabeth,	Purgitsville,	1st year.
Taylor, Edith Pugh,	Purgitsville,	1st year.
Tetrick, Claude Spray,	Enterprise,	1st year.
Thacher, William Reynolds,	Williamsburg,	1st year.
Thaw, Robert Frederic,	Parkersburg,	1st year.
Thomas, Grace,	Auburn,	Commercial.
Thompson, Charles Theodore,	Berkeley Springs,	Commercial.
Thorn, William Benjamin,	Morgantown,	1st year.
Toothman, Jas. Garfield,	Anthem,	2nd year.
Treat, Mark Emmitt,	Morgantown,	4th year.

Tucker, Reitz Courtney,	Cassville,	1st year.
Tuckwiller, Edward Hill,	Lewisburg.	1st year.
Turner, Phoebe,	Morgantown,	2nd year.
Turner, Jas. Jackson,	Morgantown,	3rd year.
Turner, Arthur,	Morgantown,	Commercial.
Turner, Uriel Mallory,	Morgantown,	Commercial.
Vance, Joseph Cochran,	Vanvoorhis,	3rd year.
Vandale, Fred E.,	Schilling,	1st year.
Vanvoorhis, Forney Lincoln,	Vanvoorhis,	Commercial.
Vega, Manuel Mariano,	San Juan, Porto Rico,	Commercial.
Ward, Randal Cholmondeley,	Huttonsville,	1st year.
Warder, Harry Brannon,	Weston,	1st year.
Waller, Samuel Aaron,	Webster,	Commercial.
Watkins, Blanche Elizabeth,	Grafton,	4th year.
Watkins, Maybelle Ray,	Grafton.	4th year.
Watson, Roger Earl,	Martinsburg,	3rd year.
Watson, Charles Edward,	Newport, Pa.,	Commercial.
Weaver, Archie Carlton,	Morgantown,	4th year.
Weaver, George Fillmore,	Morgantown,	1st year.
Weese, Orlena May,	Morgantown,	Commercial.
Weese, Victor Hugo,	Morgantown,	Commercial.
Wells, Ruth,	Morgantown,	Physical Culture.
Wetzel, Charles Henry,	Ravenswood,	1st year.
White, Gertrude Mary,	Morgantown,	Physical Culture.
Wick, John Henry,	Winfield,	2nd year.
Wilkinson, Robert Brown,	Waynesburg, O.,	2nd year.
Wilkinson, Earl Durbin,	Grafton,	1st year.
Williams, Thos. Harry,	Monessen, Pa.,	1st year.
Willis, Etta,	Bridgeport,	2nd year.
Willis, Floyd Templeton,	Shinnston,	Commercial.
Wilson, Ivan,	Percy, Pa.,	Special.
Winer, Aaron,	Pt. Marion, Pa.,	2nd year.
Woodford, Estella,	Morgantown,	2nd year.
Wyatt, John Benjamin,	Shinnston,	2nd year.
Yeager, Frederick Cleveland,	Traveller's Repose,	1st year.
Zinn, Mary Virginia,	Reedsville.	1st year.

PREPARATORY SCHOOL AT MONTGOMERY.

Absalom, Worthy Carver,	Powellton.
Agey, John Wallace,	Charleston.
Agey, Mary Winifred,	Charleston.
Agner, Eva Irene,	Montgomery.
Beard, John,	Handley.
Bekenstein, Dora Rebecca,	Montgomery.
Bekenstein. Simon Sinai,	Montgomery.
Bennett, Edward,	Montgomery.
Bias, Marshall,	Montgomery.
Bowlin, Stitzner,	Fayetteville.
Brown, Gertrude,	Gad.
Canterbury, Lorena Du Ling,	Malden.
Carson, Grace Augusta,	Montgomery.
Carver, Julia Lee,	Wake Forest.
Champe, Carl Page,	Montgomery.
Champe, Hallye Lynn,	Montgomery.
Champe, Louise Benson,	Montgomery.
Cole, George Washington,	Montgomery.
Coleman, Bradford Noyes,	Pratt.
Crabtree, John Dillon,	Handley.
Darnall, William,	Lansing.
Davin, Annie Montgomery,	Montgomery.
Davin, Lottie Livingston,	Montgomery.
Dean, Ernest Clifford,	Handley.
Dean, Stuart Bernard,	Handley.
Dent, William Thompson,	Handley.
De Quasie, Jessie,	Deep Water.
Devaney, William Bentle,	Cannelton.
Dorsey, Arnold Lee,	Ohley.
Dorsey, Minnie Mae,	Ohley.
Dwyer, Ellen Alice,	Handley.
Edwards, Spurgeon,	Montgomery.
Eppling, Nettie Laverre,	Montgomery.
Farley, Seth Thomas,	Kanawha Falls.
Farrell, Susie Levinia,	Mt. Carbon.
Gooch, Percy Bernard,	Montgomery.
Goodwin, Anna Jane,	Malden.
Grigg, Adrian Hansford,	Pratt.
Gully, Florence Etta,	Montgomery.
Guthrie, Augustus Sydney,	Beury.
Hackworth, Bessie Lee,	Montgomery.
Harland, Florence,	Kilsythe.

Hickman, Delora,	Montgomery.
Hickman, Virginia,	Montgomery.
Hopkins, Fred,	Montgomery.
Hubbard, William S.,	Charleston.
Jackson, Ella Mae,	Montgomery.
James, Edna Margaret,	Cambria.
Javin, Eugene,	Winnifrede.
Jones, Carrie Harrison,	Montgomery.
Kendall, Norah B.,	Gazil.
Kilcollin, James Joseph Carl,	Handley.
Kinney, Florence Agatha,	Montgomery.
Kinney, Mabel Garret,	Montgomery.
Kline, Charles Henry,	Hinton.
Kyle, Helen,	Carbondale.
Lane, William,	Garnet.
Love, Alexander,	Montgomery.
Lowry, Ethel,	Mt. Carbon.
McDermott, Ora,	Malden.
McKenzie, Sarah Ida,	Montgomery.
McVey, Earl Y.,	Victor.
McVey, Clarence,	Victor.
Mason, Hazel,	Montgomery.
Miller, Vernon Alfred,	McDonald.
Mitchell, Matilda,	Carbondale.
Montgomery, Alma Livingston,	Montgomery.
Montgomery, Henrie,	Charleston.
Montgomery, Louise May,	Montgomery.
Morris, Alma Clifford,	Montgomery.
Morris, Carrie,	Montgomery.
Morris, Gertrude Vaden,	Montgomery.
Morrison, Bertha,	Montgomery.
O'Brien, Margaret May,	Montgomery.
Ollom, Harlow G.,	Montgomery.
Orcutt, Warren H.,	Patrick.
Payne, Joseph William,	Montgomery.
Peters, James Addison,	Montgomery.
Peters, Jessie Lee,	Montgomery.
Pike, Frank Sibbald,	Handley.
Proctor, William Addison,	Cannelton.
Putney, Alethea Gertrude,	Malden.
Putney, Robert Bell,	Malden.
Quesenberry, Frances,	Montgomery.
Quinn, Georgia Alsace,	Montgomery.
Ramsey, Nicholas Hance,	Ramsey.
Ratliff, Amelia Coleman,	Mt. Carbon.
Rigg, Frederick,	Montgomery.

Rigg, Julia Zoll,	Glen Ferris.
Rigg, Louise Yarrington,	Glen Ferris.
Robson, Horace Greely,	Handley.
Rooke, Elsie,	Charleston.
Rooke, Frances Creel,	Charleston.
Rose, Robert Edward,	Hinton.
Ross, Jessie,	Montgomery.
Ruffner, Ida May,	Montgomery.
Rippeth, Stella,	Montgomery.
Sarver, William,	Montgomery.
Schlaegel, Philip,	East Bank.
Settle, Francis Carr,	Deep Water.
Sevy, Ethel Kendall,	Handley.
Sevy, Lyda Lester,	Handley.
Shaw, Florence,	Montgomery.
Shrewsbury, Bettie Joy,	Cedar Grove.
Shrewsbury, Jennie Lucile,	Montgomery.
Smith, Elmer,	Montgomery.
Stafford, Garnet Lucy,	Eagle.
Stowers, Julia,	Montgomery.
Walker, Jessie,	Crescent.
Walker, Nelle E.,	Winona.
Walker, Nelle M.,	Crescent.
Watters, Blanche,	Carbondale.
Wharton, Margaret Hazel,	Montgomery.
Wiley, Harry Ruffner,	Malden.
Wilson, Alma,	Cannelton.
Wilson, Charles Bruce,	Winifrede.
Wilson, Lewis Leitch,	Winifrede.
Winfree, Bessie,	Malden.
Wright, Mary.	Montgomery.

PREPARATORY SCHOOL AT KEYSER.

Adams, Lee Ethel,	Elkins.
Arnold, Howard Kimes,	Keyser.
Arnold, Charles William,	Keyser.
Athey, John Thomas,	Keyser.
Bean, Luella,	Delroy.
Bush, Ralph Fetty,	Allum Bridge.
Booda, Larry Leland,	Mill Creek.
Bray, Lewis Cass,	Blaine.
Biggs, George Augustus,	Piedmont.
Boyd, George,	Henry.
Moyer, Mrs. Ella Taylor,	Keyser.
Babb, Mabel,	Martin.
Babb, Helen Margaret,	Falls.
Burke, Mabel Curtis,	Keyser.
Burke, Herman Stewart,	Keyser.
Burke, Viva,	Keyser.
Barrickman, William Arthur,	Cassville.
Burnes, Catharine,	Keyser.
Blackman, Philadelphia,	Parsons.
Baumgartner, Vincent Victor,	Gibbons Glade, Pa.
Brosius, Nannie Taylor,	Brosius.
Corder, Odbert Earle,	Bridgeport.
Corder Mettie,	Berrysburg.
Cunningham, Guy,	Job.
Cunningham, Warner,	Job.
Cutlip, Edna,	Philippi.
Cosner, Gilbert Everette,	Buena.
Combs, Earle Lee,	Piedmont.
Collier, Arthur Clyde,	Clifton Mills.
Compton, Elma Pearle,	Keyser.
Chrisman, Blanche,	Keyser.
Clark, Chester Dewart,	Wallman, Md.
Clark, Flossie,	Wallman, Md.
Coffroth, Emlie,	Keyser.
Coffman, Elmer Otis,	Rio.
Coffman, Ira Wilbur,	Rio.
Crooks, Laura,	Keyser.
Ditmore, Jessie Amanda,	Berkeley Springs.
Deakins, Hugh Francis,	Rowlesburg.
Dunham, Orland,	Friendsville, Md.
Dahmer, Adam Thomas,	Franklin.
Davis, Mary,	Keyser.

Davis, William Russell,	Lost City.
Davis, Wilbur,	Oakland, Md.
Dilgard, Anna,	Gormania.
Dye, Charles,	Piedmont.
Everett, Alverda Z.,	Shanks.
Emmons, Lewis C.,	Keyser.
Emmons, Julian Grey,	Keyser.
Emmons, French McCarty,	Keyser.
Fink, Luther Creed,	Walther.
Fertig, Claude Wilmington,	Headsville.
Frazier, Mary Estelle,	Newburg.
Friend, Sady Elizabeth,	Hoyes, Md.
Fulmer, Nellie Florence,	Oakland, Md.
Fisher, May,	Keyser.
Garner, Robert K.,	Tunnelton.
Greenwade, Margaret,	Keyser.
Gerstell, Robert, Jr.,	Keyser.
Gerstell, Edward Ernest,	Keyser.
Gerstell, Joe Ernest,	Dawson, Md.
Githens, Florence,	Keyser.
Gladwell, Charles Newton,	Keyser.
Glover, John Wallace,	Corinth.
Grant, Howard Brooke,	Philippi.
Grubb, Joseph K.,	Parsons.
Hamstead, Mary Edna,	Maysville.
Hamstead, Oscar B.,	Maysville.
Harvey, Lena May,	Keyser.
Harman, Saul,	Harman.
Harriman, William Henry,	Rowlesburg.
Hanna, Warren,	Paw Paw.
Hamill, Fred,	Keyser.
Hammer, William Fred,	Ruddle.
Hosteter, Madaline,	Rowlesburg.
Harper, Delmar C.,	Harman.
Harper, Grace Geneva,	Dry Run.
Hall, Emily,	Keyser.
Hall, John Wotring,	Keyser.
Hall, Bee Barto,	Keyser.
Hodges, Harry Curtis,	Keyser.
Hodges, Beaulah F.,	Keyser.
Hott, Homer Arthur,	Lahmansville.
Johnson, Nellie,	Keyser.
Kalbaugh, Osborne Beall,	Piedmont.
Kessell, Clara E.,	Arthur.
Kidwell, Cora May,	Keyser.
Kennedy, Kate Zeta,	Keyser.

Koelz, Herman Charles,	Keyser.
Koelz, Fred Rost,	Keyser.
Kilroy, Thomas Leslie,	Elk Garden.
Koontz, Van Lieu,	Keyser.
Kaplon, Sara R.,	Keyser.
Long, Mrs. Edna,	Keyser.
Lanham, Charles Warren,	Rawlings, Md.
Lauck, Mary Dot,	Keyser.
Lauck, Laura Sherry,	Keyser.
Lauck, Lee Gailey,	Keyser.
Lepps, Clay Whitehill,	Keyser.
Light, Arthur Edward,	Keyser.
Light, Theodore Godfrey,	Keyser.
Light, Katie Marie,	Keyser.
Light, Annie Juliette,	Keyser.
Light, Wesley Chapman,	Keyser.
Liller, Joretha,	Keyser.
Liller, Margaret,	Keyser.
Long, Carter Inskeep,	Keyser.
Menear, Golden,	Thornton.
Michael, May,	Keyser.
Morris, James Thomas,	Cassville.
Markwood, Charles Thomas,	Keyser.
Markwood, Westfall Webb,	Keyser.
McDowell, Clyde Arthur,	Thomas.
Mulledy, Roy E.,	Keyser.
Menefee, Columbia G.,	Keyser.
Menefee, Horace Frank,	Keyser.
Montgomery, Fay,	Keyser.
Neville, John Galway,	Keyser.
Oris, Ruby May,	Keyser.
Philips, Melvin Wade,	Texas.
Price, Jason Dwight,	Independence.
Price, Elmus G.,	Independence.
Price, James McSherry,	Moorefield.
Proudfoot, John H., Jr.,	Philippi.
Parson, Charles Heber,	Romney.
Perry, Maurice Messenger,	Parsons.
Pifer, Ernest Clyde,	Parsons.
Poland, Robert Lee,	Wappocoma.
Peters, Paul D.,	Keyser.
Rogers, Edith Catharine,	Independence.
Rogers, Alvin Isaac,	Keyser.
Radabaugh, Blanche,	Hinkle.
Radabaugh, Daisy,	Hinkle.
Romesburg, Charles Koontz,	Clifton Mills.

Rice, Ernest Clyde,	Keyser.
Reese, Hattie Ellsworth,	Reeses Mills.
Ravenscraft, Eddie Harrison,	Keyser.
Russell, Catherine,	Keyser.
Ritchie, Charles,	Macksville.
Ritzell, Ethel,	Keyser.
Stemple, Lloyd Monroe,	Horse Shoe Run.
Smith, Clayton Bosworth,	Philippi.
Sigley, Charles Roy,	Philippi.
Sine, Gertrude Alverta,	Delray.
Stotler, Floyd Le Roy,	Dawson, Md.
Scott, Kent White,	Elkins.
Sharpless, Lola,	Keyser.
Sharpless, Jesse Caudy,	Keyser.
Sharpless, Catharine,	Keyser.
Smith, Bessie Liddell,	Luke, Md.
Simmons, Woward Cromwell,	Piedmont.
Smith, Ralph Eckles,	Davis.
Shillingburg, Elmer Porter,	Gormania.
Sions, Scott McC.,	Purgittsville.
Shores, Pansy,	Keyser.
Smith, Lulu Vivian,	South Branch.
Spotts, Maude S.,	Lowell.
Stehley, Lois,	Keyser.
Stehley, Elizabeth.	Keyser.
Towseley, Anna May,	Keyser.
Taylor, Ethel Hoffman,	Elk Garden.
Taylor, Helen Kathrina,	Keyser.
Thomas, John Ernest,	Newburg.
Thompson, Lonnie Vandiver,	Three Churches.
Vosler, Charlotte L.,	Maysville.
Vandiver, Myrtle V.,	Potter, Nebr.
Werner, Lepha Hope,	Brookside.
Winters, Sara Elizabeth,	Keyser.
Woolf, Louisa,	Keyser.
Woolf, Harry Gammon,	Keyser.
Woolf, Andrew,	Keyser.
Warnick, Eva,	Reeses Mills.
Wagoner, Zaida Blanche,	Alaska.
Wagoner, Lillian Estell,	Alaska.
Wagoner, Lillie Bernice,	Keyser.
Wilmoth, Ray,	Valley Furnace.
Welton, Irvin John,	Alaska.
Welch, Minnie Claire,	Keyser.
Whip, Harry,	Keyser.
Whip, Lena Belle,	Keyser.

White, Herbert Harold,	Terra Alta.
White, John Hugh,	Terra Alta.
Wirgman, Meda Reese,	Keyser.
Wirgman, Wilbur Fleetwood,	Keyser.
Wilson, Hattie Belle,	Burlington.
Wilderson, Eurith,	Gormania.
Yokum, Clyde Sterling,	Pete.
Yankey, Charles Edgar,	Dorcas.

SUMMARY OF STUDENTS

College of Arts and Sciences:

Graduate Students	7	
Seniors	25	
Juniors	24	
Sophomores	27	
Freshmen	28	
Special Students (including Summer School)	214	
Total		325

College of Engineering and Mechanic Arts:

Graduate Students	1	
Seniors	8	
Juniors	20	
Sophomores	19	
Freshmen	26	
Special Students	17	
Students registered in other departments and taking work in this college	64	
Total		91

College of Agriculture:

Seniors	2	
Freshmen	2	
Veterinary Science	1	
Special Students	53	
Students registered in other departments and taking work in this college	28	
Total		86

College of Law:

Seniors	21	
Juniors	16	
Sophomores	4	
Freshmen	2	
Diploma Law Students	24	
Bar Law Students	55	
Total		122

College of Medicine:

First Year Students	8	
Second Year Students	9	
Special Students	12	
Preparatory Students	21	
Students registered in other departments and taking work in this college	39	
Total		89

School of Music:

Regular Students	125	
Choral Society	30	
Students registered in other departments and taking work in this school	70	
Total		225

School of Fine Arts:

Regular Students	14	
Students registered in other departments and taking work in this school	147	
Total		161

Commercial School:

Regular Students	47	
Students registered in other departments and taking work in this school	48	
Total		95

Department of Physical Training:

Students taking work in this department alone...	31

The Preparatory School at Morgantown:

Fourth Year Students	18	
Third Year Students	23	
Second Year Students	46	
First Year Students	96	
Special Students	15	
Total		198

Total number of students at Morgantown	1105
Students in the Preparatory School at Montgomery	119
Students in the Preparatory School at Keyser	188
Total number of students in the University and the Preparatory Schools	1412

ENROLLMENT BY STATES.

West Virginia	1258
Pennsylvania	88
Ohio	18
Maryland	16
New York	9
Michigan	3
Illinois	2
Kentucky	2
Rhode Island	2
Alabama	1
Connecticut	1
Delaware	1
Massachusetts	1
Indiana	1
New Jersey	1
Nebraska	1
Porto Rico	3
Japan	2
Newfoundland	1
Sweden	1

DEGREES CONFERRED JUNE 15, 1904.

Master of Arts.

Mary Morton Butler, Ann Arbor, Mich.
A.B., University of Michigan.

Hannah Louise Jones, Morgantown.
A.B., West Virginia University.

William Ewin Parsons, Morgantown.
A.B., West Virginia University.

William Winfred Smith, Morgantown.
A.B., West Virginia University.

Master of Laws.

Louis Rice Burton, New Haven, Conn.
LL.B., Yale University.

Coleman Hall Bush, Parkersburg.
LL.B., West Virginia University.

Bachelor of Arts.

William Espey Albig, Ruffsdale, Pa.
William Lee Armstrong, Morgantown.
LL.B., West Virginia University.
Edgar Bullock, Penn Yan, N. Y.
Ada Rebecca Colbert, Martinsburg.
Georgia Phillips Craig, Shippensburg, Pa.
Norval Rogers Daugherty, Donora, Pa.
Walter McGarry Duke, Bakerton.
Minnie Lee Goff, Belpre, Ohio.
Benj. Franklin Lawrence, Bluefield.
Wm. Turner McCullough, Charleroi, Pa.
Solomon Granville Moore, Belington.
Mont Earle Morgan, Fairmont.
Emma Margaret Potts, Huntington.
Charles H. Ambler, St. Marys.
Lawrence Edward Bennett, Ireland.
Boaz Baxter Cox, Morgantown.
Harriet Cutts, Montgomery.
Herbert Warder Dent, Grafton.
Leila Jessie Frazer, Morgantown.
Bettie Cook Jones, Morgantown.
Nella Martin, Parkersburg.
Russell Hennen McMillen, Masontown.
Lily Sarah Morgan, Rivesville.
Isa Maude Neel, Ellenboro.
William Emmett Scott, Lewisburg.
Wm. Frederick Seiter, Triadelphia.
Ernie Pearl Taylor, Morgantown.
Jessie Trotter, Buckhannon.

Bachelor of Science in Civil Engineering.

Frank Otis Leonard, Buckhannon.

Brown Ferdinand Sperow, Hedgesville.

Bachelor of Science in Mechanical Engineering.

Walter Philip Ballard, Fullen.

Edgar Bullock, Penn Yan, N. Y.

Bachelor of Science in Agriculture.

Karl Clark Atkeson, Buffalo.
B.Agr., West Virginia University.

Bachelor of Agriculture.

John Burns Huyett, Wheatland.

Bachelor of Laws.

Clyde Alexander, Morgantown.
A.B., West Virginia University.

William Shannon Dangerfield, Princeton.
A.B., Emory and Henry College.

George Robert Heffley, Somerset, Pa.
A.B., Ohio Wesleyan University.

John Marshall, New Cumberland.
A.B., Bethany College.
A.B., Yale University.

Charles Gordon Coffman, Clarksburg.

Septer Warren Douglas, McKeesport, Pa.

Darrell Kenneth Koonce, Halltown.

Frank Roy Yoke, Morgantown.
A.B., West Virginia University.

Diploma of Graduation in Law.

Arthur Garfield Allison, New Cumberland.
David Earl Cuppett, Glade Farms.
Henry Edward Lentz, New Martinsville.
Thomas Michael O'Hara, Gladesville.
Delaware Walter Scott, Beckley.
James Davis Gronninger, Charleston.
Benjamin DeHaas Koontz, Fayetteville.
Amadeo Nazario, Sabana Grande, Porto Rico.
Jose Lorenzo Pesquera, San Juan, Porto Rico.
Thomas Henderson Shannon, Oceana.

Certificate of Graduation in Elocution.

Lucie Sara Brown, New Cumberland.
Georgia Phillips Craig, Shippensburg, Pa.
Lelia Jessie Frazer, Morgantown.

Artist's Diploma, Vocal Department, School of Music.

Frances Thomas Gordon, Morgantown.
Myrtle DeVene Shaw, Fairmont.

Graduate Certificate, Piano Department, School of Music.

Flora Ray Hayes, Morgantown.

Teacher's Certificate, Piano Department, School of Music.

Bertha Jane Smith, Sistersville.

COMMENCEMENT AND CONVOCATION SPEAKERS.

Commencement, June, 1904, President G. Stanley Hall of Clark University.

Summer School Convocation, Professor R. G. Moulton of the University of Chicago.

Fall Quarter Convocation, Professor George E. Vincent of the University of Chicago.

Winter Quarter Convocation, United States Senator John W. Daniel of Virginia.

Spring Quarter Convocation, Professor George Burman Foster of the University of Chicago.

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West Virginia University

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CALENDAR

1906

June 29, Friday.....Summer School Begins
August 9, Thursday.....Summer School Ends
September 17, Monday.....Fall Quarter Begins
September 17, 18, 19, Monday, Tuesday, and Wednesday....
..... Entrance Examinations
September 17, 18, 19, Monday, Tuesday, and Wednesday....
.....Matriculation and Registration of Students
September 19, Wednesday, 8 P. M. .....Fall Convocation
September 20, Thursday .....Recitations of Fall Quarter Begin
November 29 to December 2 .....Thanksgiving Recess
December 14, Friday .....Last Recitations of Fall Quarter
December 17, Monday, to December 19, Wednesday, inclusive
.....Final Examinations of Fall Quarter
December 20, Thursday, to January 3, 1907.....Quarterly Recess

1907

January 3, Thursday (Registration Day) .. Winter Quarter Begins
January 3, Thursday, 8 P. M.....Winter Convocation
January 4, Friday.....First Recitations of Winter Quarter
February 22, Friday .....Washington's Birthday, a Holiday
March 19, Tuesday.....Last Recitations of Winter Quarter
March 20, Wednesday, to March 22, Friday.....
.....Final Examinations of Winter Quarter
March 22, Friday.....Winter Quarter Ends
March 23, Saturday, to March 25, Monday.....Quarterly Recess
March 26, Tuesday (Registration Day) ....Spring Quarter Begins
March 26, Tuesday, 8 P. M.....Spring Convocation
March 27, Wednesday.....Recitations of Spring Quarter Begin
May 30, Thursday.....Memorial Day, a Holiday
June 11, Tuesday.....Last Recitations of Spring Quarter
June 12, Wednesday, to June 15, Saturday, inclusive.....
.....Final Examinations of Spring Quarter
June 20, Thursday..... Commencement

BOARD OF REGENTS

For the Term Beginning May 19, 1902.

J. R. TROTTER, Buckhannon. J. B. FINLEY, Parkersburg.
F. P. McNELL, Wheeling. C. M.BABB, Falls.

For the Term Beginning May 19, 1905.

C. E. HAWORTH, Huntington. L. J. WILLIAMS, Lewisburg.
E. M. GRANT, Morgantown. D. C. GALLAHER, Charleston.
T. P. JACOBS, New Martinsville.

OFFICERS OF THE BOARD.

J. R. TROTTER.....President
J. S. STEWART.....Secretary
A. R. WHITEHILL.....Treasurer
T. E. HODGES.....Assistant Treasurer
W. J. WHITE .....Auditor

Board of Regents of the Montgomery Preparatory School.

The Regents of the University and the State Superintendent of Schools, ex-officio

Board of Regents of the Keyser Preparatory School.

THOS. C. MILLER, State Superintendent of Schools, ex-officio.
THOMAS B. DAVIS, Keyser. PATRICK J. CROGAN, Kingwood.
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JAMES SITES, Upper Tract. T. H. B. DAWSON, Berkeley Springs.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

THE OFFICERS OF THE UNIVERSITY.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President. President's House.

POWELL BENTON REYNOLDS, D.D., Chaplain. 87 Grant Avenue.

WAITMAN BARBE, Litt. D., Assistant to the President, and Field Agent Peabody Hotel.

SUSAN MAXWELL MOORE, Dean of Women. Woman's Hall.

ALFRED JARRETT HARE, A. M., Registrar. 411 High Street.

ALEXANDER REID WHITEHILL, Ph. D., Treasurer. 156 Foundry Street.

THOMAS EDWARD HODGES, A. M., Assistant Treasurer. 466 High Street.

WILLIAM J. WHITE, Auditor. Episcopal Hall.

THE UNIVERSITY COUNCIL.

Daniel Boardman Purinton	St. George Tucker Brooke
James Madison Burns	Thomas Clark Atkeson
Alfred Jarrett Hare	Alexander Reid Whitehill
Waitman Barbe	Frederick Wilson Truscott
Powell Benton Reynolds	Will Hazen Boughton

Robert Allen Armstreng

STANDING COMMMITTEES.

Classification and Grades.

Thomas Edward Hodges — Jasper Newton Deahl
Alfred Jarrett Hare — Clement Ross Jones
James Morton Callahan

Ways and Means.

Charles Henry Patterson — James Scott Stewart
William P. Willey — Frederick Lincoln Emory
Ross Spence

Athletics.

Henry Sherwood Green — Walton Kirk Brainerd
Thomas Edward Hodges — William Henry Whitham
Dennis Martin Willis

Students' Aid.

Russell Love Morris — Walter Lynwood Fleming
William Jackson Leonard — Frederick Lawrence Kortright
Rufus West

Library.

Pauline G. Wiggin — Henry Sherwood Green
James Scott Stewart — Samuel B. Brown
Charles Henry Patterson

Women Students.

Susan Maxwell Moore — Grace Martin Snee
Louise Ferris Chez — Bertha Cleland Browning
Pauline G. Wiggin

Stationery and Printing.

James H. Stewart — James Morton Callahan
André Béziat de Bordes — John Harrington Cox
David Dale Johnson

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President and Professor of Philosophy. President's House.

A.B., West Virginia University, 1873; A.M., *ibid.*, 1876; Ph.D., University of Nashville, 1892; LL.D., Denison University, 1889. Instructor Preparatory Department of West Virginia University, 1873-9; Professor of Logic, *ibid.*, 1879-81; Professor of Mathematics *ibid.*, 1881-85; Professor of Metaphysics, *ibid.*, 1885-9; Vice President and Acting President, *ibid.*, 1881-82. Instructor in Vocal Music, *ibid.*, 1873-89, President, Denison University, 1890-1901; present position since 1901. Author "Christian Theism," 1889.

ST. GEORGE TUCKER BROOKE, A. M., LL. D., Professor of Common and Statute Law. 128 Willey Street.

A.M., West Virginia University, 1889; LL.D., Wake Forest College, 1890. Student, University of Virginia Law School, 1867-9; member bar, Charles Town, W. Va., since 1869; Professor of Common and Statute Law since 1878; Acting Dean of the College of Law, 1903-5.

WILLIAM P. WILLEY, A. B., A. M., Professor of Equity, Jurisprudence, and Commercial Law. 250 Pleasants Street.

A.B., Dickinson College, 1862; A.M., *ibid.*, 1865; member bar, Morgantown, W. Va., and Baltimore, Md., 1866-78; present position since 1883.

POWELL BENTON REYNOLDS, A. M., D. D., Chaplain and Professor of Economics and Sociology. 87 Grant Avenue.

A.M., West Virginia University, 1887; D.D., Richmond College, 1890. Student, Richmond College, 1866-70; President, Shelton College, 1872-84; President, Buckner College, 1884-5; Professor of English, West Virginia University, 1885-9; Vice-President and Professor of Metaphysics, *ibid.*, 1889-93; Acting President, *ibid.*, 1893-5; Professor of Metaphysics and Political Science, *ibid.*, 1895-7; Professor of Philosophy, 1897-1901; Acting President, 1901; present position since 1901.

ALEXANDER REID WHITEHILL, A. M., Ph. D., Professor of Chemistry. 156 Foundry Street.

A.B., Princeton University, 1874; A.M., *ibid.*, 1893-5; Ph.D., Washington and Jefferson College, 1887. Graduate student, University of Leipzig and Freiberg School of Mines, Germany, 1874-5; Professor of Experimental Science, University Mound College, 1876-81; Principal Linsly Institute, 1881-5; present position since 1885.

THOMAS CLARK ATKESON, M. S., Ph. D., Dean of the College of Agriculture and Professor of Agriculture. 234 Prospect Street.

LL.B., Kentucky University, 1874; Ph.B., Central Normal College, 1891; Ph.D., *ibid.*, 1893; M.S., Barboursville College, 1900. Student, Kentucky A. & M. College, 1874-6; Member of the West Virginia State Board of Agriculture and Farmers' Institute, Lecturer, since 1891; Professor of Agriculture, W. Va. University, 1891-3; President, Barboursville College, 1896-7; Regent, W. Va. University, 1897; present position since 1897.

FREDERICK LINCOLN EMORY, M. M. E., M. E., Professor of Mechanics and Applied Mathematics and Superintendent of Buildings and Grounds. 156 Foundry Street.

B.S., Worcester, Mass., Polytechnic Institute, 1887; M.M.E., Cornell University, 1896; M.E., Worcester Polytechnic Institute, 1899. Director, Mechanical Department, Washington, D. C., High School, 1887-90; Superintendent, Trades School, Concord Junction, Mass., 1890-1; Professor of Mechanical Engineering and Mechanic Arts, West Virginia University, 1891-3; Director, Indianapolis, Ind., Industrial Training and Technical High School, 1893-5; present position since 1897.

JAMES SCOTT STEWART, B. S., M. S., Professor of Mathematics. 146 Willey Street.

B.S., West Virginia University, 1877; M.S., *ibid.*, 1880. Assistant in Preparatory School, West Virginia University, 1877-91; Professor of Mathematics, *ibid.*, 1891-3; Superintendent of Schools, Fairmont, W. Va., 1893-4; present position since 1894.

SAMUEL B. BROWN, A. B., A. M., Professor of Geology and Mineralogy. 640 High Street.

A.B., West Virginia University, 1883; A.M., *ibid.*, 1886. Graduate student, National Museum, 1884; Harvard University, 1891; Teacher of Language and Mathematics, Martinsburg, W. Va., 1883-5; Principal, Glenville State Normal School, 1885-90; Assistant in Geology, West Virginia University, 1890-2; present position since 1892.

ROBERT ALLEN ARMSTRONG, A. B., A. M., Professor of English Language and Literature and Head of the Department of English. 107 High Street.

A.B., West Virginia University, 1886; A.M., *ibid.*, 1889; A.M., Harvard University, 1903. Principal, West Liberty State Normal School, 1886-93; Professor of Mathematics, West Virginia University, 1893-4; Graduate student, University of Chicago, Summer, 1898; Professor of English, West Virginia University, 1894-1901; Vice-President, *ibid.*, 1897-9; Student, Columbian University, 1900; present position since 1901.

ROBERT WILLIAM DOUTHAT, A. M., Ph. D., Professor of Latin Language and Literature. 203 Fife Avenue.

A.M., Emory and Henry College, 1874; Ph.D., Roanoke College, 1877. Professor of Languages, Missouri University School of Mines and Metallurgy, 1873-84; President, Collegiate Institute (New Mexico), 1884-7; President, Collegiate Institute (Arkansas), 1887-9; Professor of Language, Kentucky Military Institute, 1889-90; President, Barboursville College, 1890-5; Professor of Ancient Languages, West Virginia University, 1895-7; present position since 1897.

BERT HOLMES HITE, M. S., Professor of Agricultural Chemistry, Vice Director and Chemist of the West Virginia Agricultural Experiment Station. 547 Front Street.

M.S., West Virginia University, 1890. Graduate student, Johns Hopkins University, 1891-5; Fellow in Chemistry, *ibid.*, 1893-5; Chemist of West Virginia Agricultural Experiment Station since 1895; Professor of Organic Chemistry, West Virginia University, 1895-7; present position since 1897; Chief Chemist of the Geological and Economic Survey of West Virginia.

THOMAS EDWARD HODGES, A. B., A. M., Professor of Physics. 466 High Street.

A.B., West Virginia University, 1881; A.M., *ibid.*, 1884. Principal, Morgantown Public Schools, 1881-86; Principal and Instructor in Natural Science and Pedagogy, Marshall College State Normal School, 1886-96; Graduate student, Cornell University, Summer, 1897; present position since 1896.

ALFRED JARRETT HARE, A. B., A. M., Professor of Latin Language and Literature and Principal of the Preparatory School. 411 High Street.

A.B., West Virginia University, 1889; A.M., *ibid.*, 1902. Assistant in Latin and Mathematics, Preparatory School, West Virginia University, 1889-96; Preparatory Professor of Ancient Languages and Mathematics, *ibid.*, 1896-8; Professor of Latin, 1898-1901; Graduate Student, Harvard University, 1901; present position since 1901.

CHARLES HENRY PATTERSON, A. B., A. M., Professor of Rhetoric. Grand Avenue, South Park.

A.B., Tufts College, 1887; A.M., *ibid.*, 1893. Assistant Profesor of Rhetoric and Elocution, West Virginia University, 1898-9; Professor of Rhetoric and Elocution, 1899; present position since 1903.

FREDERICK WILSON TRUSCOTT, A. M., Ph. D., Professor of Germanic Languages and Literatures. 66 Beverly Avenue.

A.B., Indiana University, 1891; A.M., *ibid.*, 1892; A.M., Harvard University, 1894; Ph.D., *ibid.*, 1896. Instructor in German, Indiana University, 1891-3; Assistant and Fellow in German, Harvard University, 1893-4; Graduate student of University of Berlin, 1896-8; 1900-1901; Assistant Professor of Germanic Languages and Literature, West Virginia University, 1897-9; present position since 1899.

JOHN BLACK JOHNSTON, Ph. B., Ph. D., Professor of Zoology. 16 Franklin Avenue.

Ph.B., University of Michigan, 1893; Ph.D., *ibid.*, 1899. Assistant in Zoology, *ibid.*, 1893-7; Instructor in Zoology, *ibid.*, 1897-9; Student at the Zoological Station at Naples and at the University of Freiburg, 1904-5; Assistant Professor of Zoology, West Virginia University, 1899-1900; present position since 1900.

JAMES MADISON BURNS, Major U. S. Army, Professor of Military Science and Tactics and Commandant of Cadets. 22 Willey Street.

Graduate of Beaver Academy. Entered the Union Army in 1861; served in the 1st and 2nd West Virginia Volunteers until the close of the war; appointed 2nd Lieut., 17th U. S. Infantry, and served in that regiment until promoted Major in May, 1899; Professor of Military Science and Tactics and Commandant of Cadets, Ohio State University, 1899-1900; present position since 1900.

HENRY SHERWOOD GREEN, A. B., LL. D., Professor of the Greek Language and Literature. 670 High Street.

A.B., Yale University, 1879; LL.D., Bethany College, 1901. Teacher of Latin and Greek, Hillman Academy, Wilkesbarre, Pa., 1879-1881; Principal, *ibid.*, 1881-86; Teacher in Preparatory School, Richmond, Ky., 1889-1892; Acting Professor of Greek, Central University, Richmond, Ky., 1892-3; Principal of Harrodsburg Academy, Harrodsburg, Ky., 1893-96; Professor of the Greek Language and Literature, Bethany College, Bethany, W. Va., 1896-1900; Associate Professor of the Greek Language anl Literature, West Virginia University, 1900-01; present position since 1901.

CLEMENT ROSS JONES, B. S. C. E., M. M. E., Professor of Mechanical Engineering. 571 Spruce Street.

B.S.C.E., West Virginia University, 1894; M.M.E., *ibid.*, 1897; M.M.E., Cornell, 1900. Associate Principal, West Virginia College, 1894; Assitant in Mechanical Engineering, West Virginia University, 1895-97; Instructor, *ibid.*, 1897-99; Assistant Professor of Mechanical Engineering, 1899-1901; Special Student in shop work, Worcester Polytechnic Institute, Summer, 1893; Special Student in Experimental Engineering, Stevens Institute of Technology, Summer, 1897; present position since 1901.

WILL HAZEN BOUGHTON, B. S. C. E., C. E., Professor of Civil Engineering. 669 Spruce Street.

B.S. (C.E.), University of Michigan, 1893; C.E., *ibid.*, 1898. Assistant Engineer of Maintenance of Way for the C., C., C. & St. L. Ry. and Bridge and Structural Draughtsman for the American Bridge Company, the Brown Hoisting Machinery Company, and others; Instructor in Mathematics and Civil Engineering, Denison University, 1894-1902; Assistant Professor of Civil Engineering, *ibid.*, 1902-03; present position since 1903.

RUSSELL LOVE MORRIS, B. S. C. E., C. E., Professor of Civil and Mining Engineering. 357 Front Street.

B.S.C.E., West Virginia University, 1895; C.E., *ibid.*, 1898. Consulting Engineer, State Board of Agriculture; Assistant in Civil and Mining Engineering, West Virginia University, 1895-97; Assistant Professor, Civil and Mining Engineering, 1897-1903; present position since 1903.

JASPER NEWTON DEAHL, A. B., A. M., Professor of Education. 414 Park Street.

A.B., University of Nashville, 1889; A.B., Harvard University, 1893; Higher Diploma, Teachers College, Columbia University, 1899; A.M., Columbia University, 1899. Fellow in Education, Teachers College, Columbia University, 1899-1900; Principal West Liberty State Normal School, 1893-98; Assistant Professor of Education, 1901-02; Associate Professor of Education, 1902-03; present position since 1903.

JOHN LEWIS SHELDON, A. M., Ph. D., Professor of Bacteriology and Bacteriologist of the West Virginia Agricultural Experiment Station. 415 Park Street.

B.Pd., B.Sc., Ohio Northern University, 1895; B.Sc., University of Nebraska, 1899; M.Sc., Ohio Northern University, 1899; A.M., University of Nebraska, 1901; Ph.D., *ibid.*, 1903. Instructor in Mathematics, Mount Hermon (Mass.) School, 1892-94; Instructor in Botany, Preparatory School to the State University (Nebraska), 1898-9; Acting Head of the Department of Biology, Nebraska State Normal School, 1899-1900; Instructor in Botany, University of Nebraska, 1900-1903; Fellow in Botany, *ibid.*, 1900-1903; present position since 1903.

SUSAN MAXWELL MOORE, Dean of Women and Instructor on the Piano. 52 University Driveway.

Student in Peabody Institute, Baltimore, Md., 1878-79; Teacher in Morgantown, West Va., 1879-85; Student in New England Conservatory, Boston, Mass., (Piano, Carl Faelten, Organ, Geo. E. Whiting,) 1885-87; Teacher of Piano, Mount Holyoke College, Mass., 1887-91; Student in Berlin (Piano, Oscar Raif), 1891-92; Teacher of Piano, Conservatory of Music, Ottumwa, Iowa, 1892-93. Head of Piano Department of Shepardson College and Denison University, Granville, Ohio, 1893-1902; Summer Course under Carl Faelten, Boston, Mass., 1898, and in Faelten Piano School, Summer of 1901; present position since 1903.

JAMES MORTON CALLAHAN, A. M., Ph. D., Professor of History and Political Science. 148 High Street.

B.S., Southern Indiana Normal College, 1892; A.B., University of Indiana, 1894; A.M., *ibid.*, 1895; Ph.D., Johns Hopkins University, 1897. Teacher in Southern Indiana Normal School, 1890-92; Assistant and Fellow, Johns Hopkins University, 1895-97; Acting Professor of American History and Constitutional Law, Hamilton College, 1897-98; Lecturer on Diplomatic History and International Relations, Johns Hopkins University, 1898-1901; Director, Bureau Historical Research, Washington, D. C., 1900-1902; Associate Professor 1902-03; present position since 1903.

ANDRE BEZIAT DE BORDES, Ph. D., Professor of Romance Languages and Literatures. 93 Logan Avenue.

Ph.D., University o Chicago, 1899. Honorary Fellow, University of Chicago, 1898-99; University of Paris (Sorbonne, École des Chartes, École des Hautes Etudes), 1901-1902; Professor of the French Language and Literature, Peninsular College of Gracia, Barcelona, Spain, 1891-92; Assistant in Modern Languages, Wesleyan College, Macon, Ga., 1895-96; Professor of Modern Languages, *ibid.*, 1896-99; Professor of Romance Languages, Kalamazoo College, 1899-1900; Lecturer in the Romance Languages and Literatures, Columbia University, 1900-01; Instructor in French, University of Michigan, 1902-03; Lecturer for the Allaince Française, 1905-06; present position since 1903.

ANTHONY WENCEL CHEZ, Director of Physical Training.

79 Grant Avenue.

Leader Y. M. C. A. Gymnasium, Indianapolis, 1892; Student, Mt. Hermon School (Mass.), 1892-96; Special student, Oberlin College, 1896-99; Graduate, Chautauqua School of Physical Education, 1902; Graduate, Harvard School of Physical Training, 1903; Graduate Coach, Oberlin College, 1899; Director Gymnasium and Athletic Coach, Wabash College, 1900-01; Professor of Physical Training and Athletic Coach, De Pauw University, 1901-02; Director, Physical Culture and Athletic Coach, University of Cincinnati, 1902-04; Assistant, Harvard Summer School of Physical Training, 1905; present position since 1904.

JOHN NATHAN SIMPSON, A. B., M. D., Professor of Anatomy and Physiology and Head of the Medical Faculty at Morgantown.

293 High Street.

A.B., University of Nashville, 1893; M.D., Johns Hopkins University, 1902. First Assistant in Marshall College, 1893-7; Principal, Huntington High School, 1897-8. Instructor in Anatomy and Physiology, 1902-03; Associate Professor, 1903-04; present position since 1904.

JOHN HARRINGTON COX, Ph. B., A. M., Professor of English Philology. 188 Spruce Street.

Graduate, Illinois State Normal University, 1891; Ph.B., Brown University, 1897; A.M., Harvard University, 1900. Educational Director, Twenty-third Street Branch, Y. M. C. A., New York City, 1897-9; Graduate student, Harvard University, 1899-1901; Professor of the English Language and Literature, University of North Dakota, 1901-02; Instructor in English Philology, 1902-03; Associate Professor of English Philology, 1903-04; present position since 1904.

WALTER LYNWOOD FLEMING, A. M., Ph. D., Professor of History. 258 McLane Avenue.

B.S., Alabama Polytechnic Institute (A. and M. College), 1896; M.S., *ibid.*, 1897; M.A., Columbia University, 1901; Ph.D., *ibid.*, 1904. Assistant in History, English and Mathematics, Alabama Polytechnic Institute, 1896-97; Librarian, *ibid.*, 1897-98, 1899-1900; Instructor in History and English, *ibid.*, 1899-1900; Fellow in American History, Columbia University, 1901-02; Lecturer in History, *ibid.*, 1902-03; Associate Professor of History, 1903-04; present position since 1904.

ROSS SPENCE, Director of the School of Music and Instructor on Stringed Instruments. 165 High Street.

Graduate, University School of Music, Ann Arbor, Michigan, 1897; Pupil of Emanuel Wirth, Berlin, 1897-1900; Member, Boston Festival Orchestra, 1901; Instructor on Stringed Instruments, 1901-04; present position since 1904.

WAITMAN BARBE, A. M., Litt. D., Assistant to the President and Associate Professor of the English Language and Literature.

Peabody Hotel.

B.S., West Virginia University, 1884; M.S., *ibid.*, 1887; A.M., 1897; Litt. D., Denison University, 1904. Regent, West Virginia State Normal Schools, 1895-1901; Field Agent, West Virginia University, 1895-8; Graduate student, Harvard University, 1900; present position since 1898.

FREDERICK LAWRENCE KORTRIGHT, B. S., D. Sc., Associate Professor of Chemistry. 234 Jackson Avenue.

B.S., Cornell University, 1890; D.Sc., *ibid.*, 1895. Assistant in Chemistry, *ibid.*, 1890-1; Chemist, Solvy Process Company, 1891-2; Assistant in Chemistry, Cornell University, 1892-3; Instructor in Chemistry, *ibid.*, 1893-9; Graduate student, Polytechnicum, Switzerland, 1899-1900, and Technische Hochschule, Carlsruhe, Germany, 1900; Instructor in Chemistry, Cornell University, 1900, Assistant Professor of Chemistry, 1900-1902; present position since 1902.

EDWIN MAXEY, D. C. L., LL. D., **Associate Professor of Law.**
59 Jones Avenue.

Ph.B., Bucknell University, 1893; LL.B., Chicago Law School, 1897; LL.M., *ibid.*, 1897; D.C.L., Illinois College of Law, 1898; Ph.M., the University of Chicago, 1899; LL.D., Illinois College of Law, 1901; M.Dip., Columbian University, 1903. President of Palatinate College, 1893-94; Lecturer on Constitutional and International Law, Illinios College of Law, 1896-99; Dean of Aurora Law School, 1898-1900; Dean of the Law Department of Southern University, 1900-1901; Teaching Fellow in Jurisprudence and Constitutional Law, University of Wisconsin, 1901-02; Lecturer on Colonial Law and Government, Columbian University, 1902-03; present position since 1903.

C. EDMUND NEIL, A. B., Associate Professor of Elocution and Oratory. 373 Spruce Street.

A.B., McKendree University, 1895; A.B., Ohio Wesleyan University, 1897. Private pupil of Leland T. Powers, 1895-98 (Summers); Instructor in Elocution, Ohio Wesleyan University, 1895-6; Assistant Professor of Oratory, Ohio Wesleyan School of Oratory, 1896-7; Professor of Elocution, Denison University, 1897-8; Professor of Oratory and Elocution, Denison University, 1901-03; Assistant Professor of Elocution, 1903-04; present position since 1904.

WILLIAM JACKSON LEONARD, Associate Professor and Head of the Department of Fine Arts. 107 High Street.

Student, The Cowles Art School, Boston, 1889-90; Pupil of Jean Paul Laurens and Benjamin Constant, Paris, 1891-93; Student, Academie Julien and Ecole des Beaux Arts, Paris; Special student, Harvard University; Instructor in Fine Arts, 1900-02; present position since 1902.

EDWIN FAYETTE CHURCH, Jr., B. S., Assistant Professor of Mechanical Engineering. 288 Grand Street.

B.S., Massachusetts Institute of Technology, 1901. Draftsman and Assistant to Engineer, William Cramp & Sons., Philadelphia, 1901-1903; Draftsman, I. P. Morris Co., Philadelphia, 1903; Instructor in Marine and Mechanical Engineering and Naval Architecture, Lehigh University, 1903-1904; Asociate Member of American Society of Naval Engineers and of Society of Naval Architects and Marine Engineers; present position since 1904.

JUSTIN FRANK GRANT, Ph. B., M. D., Assistant Professor of Anatomy. Lincoln Avenue.

Ph.B., Yale University, 1898; M.D., Johns Hopkins University, 1903. Resident Physician and Surgeon, Hahnemann Hospital, Rochester, N. Y., 1900-1901; Instructor in Anatomy, 1903-04; present position since 1904.

GEORGE PERRY GRIMSLEY, A. M., Ph. D., Special Lecturer in Economic Geology. 727 North Front Street.

A.B., Ohio State University, 1890; A.M., *ibid.*, 1891; Ph.D., Johns Hopkins University, 1894. Special student at Chicago University, 1899; Special student at Leland Stanford Jr. University, 1901; Assistant Geologist Ohio Geological Survey 1890-92; Assistant Geologist Kansas Geological Survey, 1896-1901; Assistant Geologist Michigan Geological Survey 1901; Professor of Geology and Natural History, Washburn College, Topeka, Kansas, 1895-1904; Geologist Kansas State Board of Agriculture, 1896-1904; Secretary Kansas Academy of Science, 1902-04; Chief of Kansas Mineral Exhibit, St. Louis World's Fair, 1904; Assistant State Geologist, West Virginia Geological Survey, 1904; present position since 1905.

DENNIS MARTIN WILLIS, LL. B., Principal of the Commercial School. South Park.

LL.B., West Virginia University. Instructor, Methodist Conference Seminary, Buckhannon, 1891-2; Instructor, West Virginia Business College, 1892-3; Instructor, Northwestern Academy, Clarksburg, 1893-4; Instructor, Central Commercial College, Cumberland, Md., 1894-5; Principal, Western College of Commerce, 1895; present position since 1895.

EVA EMMA HUBBARD, Instructor in Drawing and Painting. 265 Academy Place.

Graduate, Morgantown Female Seminary, 1876. Student in Mrs. I P. Wilkinson's studio, Wheeling, 1881-2; Instructor in Drawing and Painting, Wheeling Female College, 1883-4; Student in Carl Hecker's Art School, New York City, 1884-5; Instructor in Fine Arts, Mountain Lake Park Summer Chautauqua, 1885-8; Private studio, Wheeling, 1881-2; Instructor in Drawing and Painting, Mrs. M. Stevens Harts' School for Young Ladies, 1894-7; present position since 1897.

GRACE MARTIN SNEE, B. M., Instructor on the Piano and Pipe Organ. 657 Spruce Street.

Graduate, Virginia College for Young Ladies, 1893; B.M., *ibid.*, 1894. Instructor in Piano Department, *ibid.*, 1893-4; Graduate student, Peabody Institute, Baltimore, 1895-6; Assistant on the Piano, West Virginia University, 1897-1901; present position since 1901.

CHARLES COLLIER HOLDEN, A. B., Instructor in Romance Languages. 468 High Street.

Student of University of Virginia, 1877-81; Study in Europe, 1881-83; Instructor in Modern Languages, Maupin's University School, Ellicott City, Maryland, 1885-8; A.B., (extra ordinem), Johns Hopkins University, 1888; Graduate student, *ibid.*, 1896-8; Principal of Private School, Raleigh, N. C., 1889-94; Principal of Elkton, Maryland Academy, 1896-99; Instructor in Modern Languages, Boys' University School of Baltimore, 1899-1900; Assistant in Romance Languages, 1901-03; present position since 1903.

RUDOLF WERTIME, Instructor on the Piano. 9 Park Street.

Pupil in the Royal High School of Music, Berlin, 1894-1898, where for four years his instructors were Professors Raif, Bargiel, Wolff, and Von Herzogenberg; Teacher in the Clinton Liberal Institute, New York, 1898-1900; Post Graduate work with the Conrad Ansorge, Berlin, 1900-1901; present position since 1903.

ALEXANDER STEWART THOMPSON, Instructor in Voice. South Park.

Springfield, Mass., Conservatory of Music, 1875-79; Director of Music, Saratoga Springs, N. Y., Public Schools, 1884-87; Student of Voice, William Courtney, New York City, 1887; Student of Piano, Kelso and Sherwood, 1890; Director of Music, Kansas State Normal, 1890-91; Norfolk, Va., Ladies College, 1891-92; Student, Guildhall School of Music (Sims Reeves), London, England., and Dr. W. E. Gladstone, Royal College of Music, London, Eng., 1892-93; Oneida Conservatory of Music and Utica School of Music, Utica, N. Y., 1893-97; Director of Music, Lincoln, Ill., College, 1897-1903; Director of Music, Lombard College, 1903-4; present position since 1904.

WALTER KIRK BRAINERD, B. S., Instructor in Dairying. 307 University Driveway.

B.S., Michigan Agricultural College, 1899. Graduate student, *ibid.*, 1899-1900, and Tulane University, 1902-03; Instructor in Breeds of Live Stock and Dairying, Baron de Hirsch School, Woodbine, N. J., 1901-02; Instructor in Breeds of Live Stock Feeding and Stock Breeding, Leland University, New Orleans, La., 1902-03; present position since 1903.

THOMAS CARSKADON JOHNSON, B. S. Agr., A. M., Associate Horticulturist of the West Virginia Agricultural Experiment Station, and Instructor in Botany. 375 Spruce Street.

B.S.Agr., West Virginia University, 1896; A.M., *ibid.*, 1900. Instructor in Science, Lee Military Academy, 1896-9; Fellow and Graduate Student, West Virginia University, 1899-1901; Acting Professor of Horticulture, University of Missouri, 1901-2; Fellow in Horticulture, Cornell University, 1902-3; Assistant Horticulturist, West Va. Agricultural Experiment Station, 1903-5; present position since 1905.

SIMEON CONANT SMITH, A. B., A. M., Instructor in Rhetoric and Assistant in English in the Preparatory School. 107 High Street.

A.B., Tufts College, 1898; A.M., West Virginia University, 1902; Graduate student, Harvard University, 1903-4; Fellow in Rhetoric and Elocution, West Virginia University, 1899-1900;; present position since 1900.

JAMES A. WAUGH, V. S., Instructor in Veterinary Science.

V.S., Ontario Veterinary College, Toronto, Canada, 1882. Veterinary Surgeon, Sixth U.S. Cavalry, 1882-90; Practicing Veterinary Surgeon Alleghany and Pittsburgh, 1890-1904; present position since 1904.

WILLIAM MICHAEL BAUMGARTNER, A. B., Instructor in German. 269 Willey Street.

A.B., West Virginia University, 1903. Student in Berlin, Summer, 1905; Instructor in German and French, Keyser Preparatory Branch of the West Virginia University, 1903-1905; present position since 1905.

WILLIAM ELMORE DICKINSON, A. B., M. E.- E. E., Instructor in Electrical Engineering. 269 Spruce Street.

L.I., College of William and Mary, 1894; A.B., *ibid.*, 1900; M.E. E.E., Cornell University, 1904. Student University of Virginia, Summer of 1898 and 1902; Principal of Grammar and High Schools in Virginia, 1895-1901; Student apprentice, Stanley Electrical Manufacturing Company, Pittsfield, Massachusetts, 1903; Member of Testing Corps, Electric Railway Test Commission, Louisiana Purchase Exposition, 1904; Assistant Engineer, Westinghouse, Church, Kerr and Company, New York, 1904-5; present position since 1905.

ARTHUR LEE POST, A. B., A. M., Instructor in Bacteriology and Anatomy. 87 Grant Avenue.

A.B., West Virginia University, 1898; A.M., *ibid.*, 1905; Fellow in Chemistry, *ibid.*, 1898-9; Teacher of Science, West Virginia Wesleyan University, 1899-1901; Student in the Medical Department of Johns Hopkins University, 1901-03; Student in Bacteriology, University of Chicago, Summer, 1904; Graduate student, West Virginia University, 1904; present position since 1905.

ELIZABETH LEE WHITESCARVER, Assistant in Shorthand and Typewriting. 156 Willey Street.

Student in Commercial School, West Virginia University, 1895-7; present position since 1897.

BERTHA CLELAND BROWNING, A. B., A. M., Assistant in the Preparatory School. 68 Beverly Avenue.

A.B., West Virginia University, 1900; A.M., *ibid.*, 1902. Present position since 1901.

WILLIAM HENRY WHITHAM, B. S., A. M., Assistant in Physics and Geology, 92 Beverly Avenue.

B.S., West Virginia University, 1899; A.M., *ibid.*, 1900; A.M., Cornell University, 1901. Graduate student, Cornell University, 1903-04; Fellow in Physics, West Virginia University, 1899-1900; present position since 1901.

DAVID DALE JOHNSON, A. B., A. M., Assistant in English. 375 Spruce Street.

A.B., Marietta College, 1896; A.M., West Virginia University, 1903. Instructor in Latin and Sciences, Parkersburg High School, 1896-7; Instructor in German and Latin, Marietta Academy, 1897-8; Instructor in English, Parkersburg High School, 1898-1902; present position since 1902.

MABEL CONSTANCE FOSTER, Assistant in Harmony, Theory, Musical History, Sight Reading, Ear Training, and Piano. Peabody Hotel.

Student in Conservatory of Music, Philadelphia, 1891-2; Pupil of Von Westernhagen, Philadelphia, 1893; Pupil of Elisa Mazzucato Young in Harmony, 1897-1901; Student in Sherwood School of Music, 1901-02; Accompanist in Sydney Lloyd Wrightson's Studio, Chicago, 1901-02; present position since 1902.

DRUSILLA VICTORIA JOHNSON, A. B., A. M., Assistant in Greek and Mathematics. 672 High Street.

A.B., Bethany College, 1900; A.M., West Virginia University, 1902. Instructor in Greek and Latin, Bethany College, 1899-1900; Graduate Student, West Virginia University, 1900-1901; Teacher of Greek and Mathematics, Preparatory Branch of West Virginia University at Montgomery, 1901-03; present position since 1903.

LOUISE FERRIS CHEZ, Assistant Director of Physical Training, in Charge of the Woman's Gymnasium. 79 Grant Avenue.

Graduate, Chautauqua School of Physical Education, 1902; Post Graduate work in Massage and Swedish; Assistant to Jakob Bolin of New York City in Clinic of Corrective and Orthopedic Gymnastics, 1903. Director of Physical Training for Women, DePauw University, 1901-2; Director, Physical Culture for Women, University of Cincinnati, 1903-4; present position since 1904.

RUFUS A. WEST, Assistant in Metal Working and Stationary Engineer. 181 First Street.

Apprentice, Fairchild, Layhead & Co., Carriage Builders, 1887-90; Blacksmith, Tygart Mfg. Co., 1890-92; Special student, Springs Garden Institute, Summer, 1897; Head Stationary Engineer, National Export Exposition at Philadelphia, Fall, 1899; present position since 1892.

THOMAS HOWARD CATHER, Foreman of the Machine Shop. 487 Spruce Street.

Apprentice, B. & O. R. R. Machine Shop at Grafton, 1887-91; Machinist, B. M. R. R. Co. and Union Pacific R. R., 1891-93; C. R. I. & P. R. R. Co., Horton, Kans, 1893-95; Cotton Belt R. R., Pine Bluff, Ark., 1895-97; Navy Yard, Washington, D. C., 1898; Foreman, B. & O. Erecting Shop, Grafton, W. Va., 1899-1902; present position since 1902.

W. A. MESTREZAT, Assistant in Music (Wind Instruments). South Morgantown.

Pupil of W. H. Stowe, G. Oeschsle, and F. B. Heuber; Member 21st U. S. Infantry Band; Band Master, 1st W. Va. Vol. Infantry in Spanish War, and 30th U. S. Vol. Infantry in Philippines.

JOHN B. GRUMBEIN, Foreman of the Wood Shop. 491 Front Street.

Graduate, Lebanon High School, Lebanon, Pa., 1894; Apprentice, Orr, Painter & Co., Reading, Pa., 1895-8; Pattern Maker, Harrisburg Foundry & Machine Co., 1898-9; Robert Wetherel & Co., Chester, Pa., 1899; Ingersoll-Sergeant Drill Co., Easton, Pa., 1899-1900; Foreman of Pattern Shop, Blairsdell Mach'y Co., Bradford, Pa., 1900-03; present position since 1903.

SUSAN SOPHRONIA BROOKE, Assistant in Voice. Uniontown, Pa.

Vocal Instruction, Mark C. Baker, Pittsburg, Pa.; Madam Von Kleuner, New York City; Dramatic interpretation, Paul Savage; Oratorio, Wm. J. Percy, New York City; Assistant Vocal Teacher, Mark C. Baker, 1900-1; Assistant Vocal Teacher, Madam Von Kleuner, 1904-5; present position since 1905.

SPECIAL SUMMER SCHOOL INSTRUCTORS AND LECTURERS.

CHARLES ALEXANDER M'MURRY, Ph. D., (Principal Practice Department, Northern Illinois Normal School, and Educational Author), Education.

EDWARD EVERETT HALE, JR., Ph. D., (Professor of English in Union College), English Literature.

RICHARD GAUSE BOONE, Ph. D., (Editor of "Education," and late Superintendent Cincinnati Public Schools), Education.

NATHANIEL BUTLER, LL. D., (Professor in the University of Chicago), Literature and Education.

SARAH E. GRISWOLD, (Professor of the Science and Art of Instruction in the Chicago Normal School), Primary Department, Observation Classes, Handicraft.

MARGARET K. SMITH, Ph. D., (Professor of Psychology and Geography in the New York State Normal School, New Paltz on the Hudson), Geography and Physiography, Psychology.

JOHN PORTER LAWRENCE, (Director of Piano Department National Park Seminary, Washington, D. C.), Piano and Organ.

ANTON KASPAR (Concert Master of Georgetown Orchestra, Washington, D. C.), Violin.

MARY ARLINE ZURHORST (Principal National Cooking School, Washington, D. C.), Domestic Science.

MARY KETCHAM, Litt. B., (Syracuse University), Design and Basketry.

REV. HOWARD M. HAMILL, A. M., D. D., Superintendent Training Work, M. E. Church South, Nashville, Tennessee.

REV. CHARLES ROADS, D. D., General Field Worker, Methodist Episcopal Church, New York.

W. C. PEARCE, Teacher Training Secretary, International Sunday School Association, Chicago, Illinois.

W. C. SHAFER, General Secretary West Virginia Sunday School Association.

REV. L. E. PETERS, District Secretary American Baptist Publication Society.

REV. C. HUMBLE, M. D,. Superintendent Presbyterian Sunday School Missions for Kentucky, Tennessee, and West Virginia.

MARTHA GRAHAM, Superintendent Primary Department West Virginia Sunday School Association.

LIBRARY STAFF.

PAULINE G. WIGGIN, B. L. S., A. M., 125 Foundry Street.

A.M., Radcliffe College, 1895; B.L.S., New York State Library School, 1902. Instructor in English, Vassar College, 1895-97; Instructor in English, Wellesley College, 1897-99; Assistant in charge of History Division, New York State Library, 1901-02; present position since 1902.

JESSICA GARDINER CONE, Assistant Librarian and Cataloguer.

Vassar College, 1879-80; New York State Library School Diploma, 1897; Library organizer and cataloguer, 1897-1904; present position since 1904.

MARGARET CLARK SMITH, A. B., Assistant Librarian.
107 High Street.

A.B., Wilson College, 1902; Graduate, Drexel Institute Library School, 1903; Instructor in English High School, Martin's Ferry, Ohio, 1904; present position since 1904.

KATHERINE CLIFTON HEDRICK, Assistant in Law Library.

Private Secretary to President of West Virginia Supreme Court of Appeals, 1896-1901; Legal Reporter of the Law Journal of West Virginia Bar Association, 1897-1901; present position since 1903.

LILLIAN SMITH, Assistant in the Library.

AGRICULTURAL EXPERIMENT STATION STAFF.

JAMES H. STEWART, A. M., Director and Agriculturist.
118 Willey Street.

BERT HOLMES HITE, M. S., Vice Director and Chemist.
547 Front Street.

JOHN LEWIS SHELDON, A. M., Ph. D., Bacteriologist.
415 Park Street.

WILLIAM EARL RUMSEY, B. S. Agr., Entomologist in Charge. 415 Park Street.

THOMAS CARSKADON JOHNSON, B. S. Agr., A. M., Associate Horticulturist. 375 Spruce Street.

HORACE ATWOOD, M. S. Agr., Assistant Horticulturist (Experiment Station Farm.)

FRANK BATSON KUNST, Assistant Chemist. 542 Spruce Street.

CARL SCHURZ FORKUM, B. S., Assistant Chemist. 308 Prospect Street.

FREDERICK E. BROOKS, Special Agent. 415 Park Street.

WILLIAM J. WHITE, Clerk. Episcopal Hall.

MARTHA A. STEWART, Librarian. 118 Willey Street.

ALICE ENGLE, Stenographer. 552 Spruce Street.

WEST VIRGINIA UNIVERSITY

ORGANIZATION.

The University organization consists of the following colleges and schools:

I. The College of Arts and Sciences.
II. The College of Engineering and Mechanic Arts.
III. The College of Agriculture.
IV. The College of Law.
V. The College of Medicine.
VI. The College of Veterinary Science.
VII. The School of Oratory.
VIII. The School of Music.
IX. The School of Fine Arts.
X. The School of Military Science and Tactics.
XI. The Summer School.
XII. The Commercial School.
XIII. The Preparatory Schools.
XIV. The West Virginia Agricultural Experiment Station.

FOUNDATION AND LOCATION.

In 1814 the legislature of Virginia passed an act incorporating Monongalia Academy and locating it at Morgantown. The first building was a one-story brick structure, divided into two rooms. In 1828 this building was sold and a two-story brick building erected. As further endowment, the Virginia legislature passed an act authorizing the trustees of the Academy to raise twenty thousand dollars by lottery. The drawings for this lottery were conducted January 26, 1832. In later years, the Monongalia Academy became an institution of wide reputation and drew students at one time from fourteen states. For more than fifty years, it was the leading school in Virginia, west of the mountains.

On July 2, 1862, Congress passed an act donating public lands to the several states to establish "colleges for the benefit of Agriculture and Mechanic Arts." In 1864, this act was extended to the new State of West Virginia, and in 1867, the West Virginia Agricultural College was founded. The trustees of the Monongalia

Academy gave to the estate all of the real estate and personal effects of the Academy. The building and grounds of Woodburn Seminary, a school for girls at Morgantown, were also donated, and the new college succeeded the old academy and seminary, inheriting an honorable record and much good will. The first faculty meeting was held August 20, 1867, and on September 2 of that year, the school was formally opened. The first session was held in the Academy building and the Woodburn Seminary building, which stood where Woodburn Hall now stands, was used as a dormitory. In 1868 the name of the new institution was changed by an act of the Legislature to the West Virginia University.

Morgantown, the seat of the University, is the county seat of Monongalia county. It is a beautiful town of nine thousand inhabitants, located on the Monongahela river and the Baltimore and Ohio railroad, 103 miles east of Wheeling, and the same distance south of Pittsburg. It has the modern conveniences of natural gas waterworks, electric lights, street railway, local and long distance telephones, and is noted for its healthful conditions, physical, social, and moral. There are churches of the following denominations in the town: Presbyterian, Methodist Episcopal,, Methodist Protestant, Baptist, Protestant Episcopal, Lutheran, Christian, and Roman Catholic. There are no saloons.

Few institutions of learning have more attractive natural sites. The University grounds border the Monongahela river and afford a most picturesque outlook. The campus comprises about fifty acres. The University has also a farm of about one hundred acres for the use of the Agricultural Experiment Station and the College of Agriculture.

FUNDS.

The funds for maintaining the University are derived from the following sources: (1) Interest on the land grant endowment of $114,750; (2) the Morrill fund; (3) the Hatch fund; (4) biennial appropriations by the state legislature; (5) fees and tuition, the latter being paid only by students from other states.

BUILDINGS.

The buildings are as follows:

1. Woodburn Hall, a three-story building, containing lecture rooms and the botanical and zoological laboratories. The third floor of this building is occupied by the School of Music.

2. Martin Hall, a three-story building, containing lecture rooms and society halls.

3. Science Hall, a four-story building, containing lecture rooms,

laboratories for the departments of physics, chemistry, and geology, the museum of geology and paleontology, and the President's office.

4. Commencement Hall, a large two-story building, containing a commodious chapel, with 1,500 seats, and the gymnasium.

5. The Agricultural Experiment Station, a two-story building, containing laboratories, lecture rooms, and offices.

6. The Armory and Drill Hall, for the Military Department.

7. Mechanical Hall, occupied by the College of Engineering and Mechanic Arts.

8. The Library, containing the general library, reading, and seminary rooms.

9. The President's House.

10. The Central Heating Plant, in process of construction.

11. The Woman's Hall, or dormitory, for young women students.

12. Fife Cottage, containing lecture rooms.

Besides these there are the various buildings on the Agricultural Experiment Station Farm.

The first ten of the buildings mentioned are of brick and stone.

THE UNIVERSITY LIBRARY.

The library is open from 8 A. M. to 10 P. M. every week day during term time, except Thanksgiving day, Christmas day, New Year's day, and the Fourth of July. On Sundays, the library is open, for readers, from 2 to 5 p. m. During the summer vacation, it is open on week days from 8 to 11 A. M.

All officers and students and, under special restrictions, persons not connected with the University, have the privilege of drawing books from the library for home use, two volumes being allowed at one time. Direct access is permitted to the shelves in the stack as well as in the reading and reference rooms, and thus students have an opportunity to become acquainted with the literature of the subjects studied as far as it is represented in the library. The most important books used in connection with the courses of instruction are kept on reserve shelves in the reference room for more convenient access.

A card catalogue, shelf list, and other bibliographic aids are provided, and the librarians are ready at all times to give assistance in research and investigation.

The library contains about 24,500 volumes, including 4,000 government documents. Present appropriations provide for an annual increase of about 1,300 volumes. One hundred and sixty periodicals are subscribed for, including publications of societies and scientific journals. Most of the county papers of the state are sent to the reading room.

There is a special library belonging to the College of Law containing 2,000 volumes, located in Woodburn Hall; and the Villey library, a valuable collection of about 1,500 volumes donated to the University by the heirs of the late Senator W. T. Willey, will be placed in the document room and opened to the public as soon as the shelving is completed.

The library of the Agricultural Experiment Station, containing valuable sets of chemical journals and other technical material, may also be consulted by members of the University.

The handsome new library building, erected by the stae, was opened for use in January, 1903, and has supplied one of the greatest needs of the University. It is entirely of stone, fire-prof, and contains ample reading and reference rooms, which are abundantly lighted and well furnished with modern library appliances. The book room is supplied with metal stacks, which hold 20,00 volumes. A second story is soon to be added to the stack, doubling its capacity.

On the upper floors of the building are rooms for government documents and for seminaries. These are not yet completed furnished, but will, it is hoped, soon be ready for use.

DEPARTMENTAL EQUIPMENTS.

Anatomy.

The lecture room contains a considerable collection of osteological material, mounted and unmounted, models, etc. The dissecting room has tables for the accommodation of forty students at one time. The anatomical law of West Virginia furnishes ample material for practical work and every student is given opportunity for the dissection of the whole body under the personal supervision of the instructor.

Astronomy.

A students' astronomical observatory has recently been erected on the top of the hill in the north east corner of the University campus. The dome is thirteen feet in diameter and is similar in construction to the Hough type. It is equipped with an achromatic telescope of five and one-half inches aperture and six feet focal length, mounted equatorially on an iron pier, and given by clockwork mechanism. The telescope is provided with a assortment of eyepieces of high and low powers and with fittings for different kinds of work. For illustrating the lectures, a carefully selected assortment of lantern slides, drawings, maps, diagrams and models has been obtained and this is supplemented by apparatus lent by other departments. The library contains the principal hand-books and

treatises in each section of descriptive and mathematical astronomy, together with the publications of the U. S. Government, the files of "Popular Astronomy," the Astrophysical Journal, and the bulletins from Harvard, Lick, and Yerkes observatories.

Bacteriology and Plant Pathology.

The laboratories for bacteriology and plant pathology are in the Experiment Station building and Woodburn Hall. They are provided with gas and electricity, hot and cold water, sterilizers, autoclaves, incubators, microscopes and accessories, and the usual glassware. Additional apparatus is being added from time to time.

Botany.

The botanical laboratory is equipped with Bausch and Lomb microscopes, hand lenses, microtome, standard stains and chemicals, special physiological apparatus, including centrifugal machine, clinostat, auxanometer, devices for the automatic registration of transpiration and photosynthesis, complete apparatus for the study of respiration, and a large collection of alcoholic histological material. The department of botany has always been granted any needed use of the green-houses of the Experiment Station.

Chemistry.

The rooms assigned to this department are located on the second floor of Science Hall and consist of a lecture room and two large laboratories. Connected with these are a dark room, a weighing room, and a preparation room. The laboratories afford working space for sixty-five students at a time and are abundantly supplied with water, gas, chemicals, and apparatus necessary for practical work. This apparatus includes a large number of pieces used in illustrating the elementary principles of the science as well as many of the more expensive instruments used in analytical work. An excellent collection of the latest text and reference books is kept within easy reach of the students and the aim has been to make the laboratory outfit as complete and ample as possible.

Civil Engineering.

The material equipment of this department consists of the civil engineering laboratory, equipped with a collection of apparatus and instruments for instruction in engineering complete and modern, transits, levels, theodolites, surveyors' compasses, aneroid barometers, plane table, solar compass, sextant clinometers, odometer, pedo-

meters, telemeters, prismatic compass, hand levels, a full collection of drawing instruments, blue printing outfit; complete set of United States standard weights and measures, testing machines for testing strength of materials, as wood, iron, steel stone, cement, mortar, etc.; a drawing room containing a large number of descriptive geometry models as well as models of bridges, furnaces, and many other structures, and a large number of wood and plaster casts and models pertaining to descriptive geometry, architecture, etc. The equipment of the department of physics, described below, is of great value to students in the engineering courses.

Commercial School.

The commercial school is fitted out with a banking counter, office desks, and a complete equipment for business practice. Ten Smith Premier tpyewriters are provided for the use of students in the typewriting department.

Dairying.

The dairy equipment consists of one "National" power separator, several small hand separators of different makes, one power and one hand churn, one 200 gallon tempering vat, one 75 gallon vat, one power and one hand butter worker, apparatus for the Babcock test, preservative tests, the acid test, and a complete equipment for making ice cream. This equipment occupies one-half of the basement of Martin Hall.

Entomology.

The equipment of the entomological department includes collections of fruit tree, farm, and garden insects sufficient for illustration in the courses in entomology. The apparatus for collecting, breeding, mounting, preserving, and studying specimens is complete. The microscopic outfit is sufficient for carrying on any class of study in this line. The photographic department is thoroughly equipped for the requirements of entomological and other work.

Geology.

The equipment for purposes of illustrative teaching in this subject consists of many thousands of fossils, casts and models, a good collection of minerals, specimens of all the important building stones, and Ward's College Collection in Paleontology, showing the advancement from the early forms of life to those of the present time. The University is situated in the midst of a great coal producing region, within five miles of the western fold of the Appalachian mountains, and oil and gas wells are but a short distance away. The natural facilities for the study of geology are unsurpassed.

Mechanical Engineering.

Practical instruction in mechanical engineering and the mechanic arts and in electrical engineering is provided for in the equipment of Mechanical Hall. Standard measures, calculating instruments, and laboratory apparatus are provided for qualitative and quantitative experimental work in engineering.

The electric light and power plant of the University is located in Mechanical Hall. The boilers, triple-expansion engines, condensers, and electrical machinery, as well as the motive-power machinery of the shop, have been especially selected and arranged for experimental work in mechanical and electrical engineering. In the drawing room, models of the typical valve-gears are used for instruction. Samples of raw materials and of manufactured products are collected, forming the nucleus of an engineering museum. Such machine tools and work-shop appliances for working wood and metal, as well as small tools, stock and material, as will enable the work of instruction to be carried on efficiently in the mechanic arts, are supplied.

Physics.

The department of physics has its lecture room and laboratories in Science Hall. A large room on the basement floor of this building has been fitted up as a laboratory and equipped with apparatus quired of students in every regular course given in the department.

The apparatus for electrical measurements and test work is especially well selected and of superior quality. Students in electrical subjects have opportunity to become familiar with the use of the latest and most improved forms of apparatus for measurement of current resistance, electro-motive force, quantity, capacity, induction, etc.

The lecture table equipment is also quite extensive. The laboratory is open for the use of students every afternoon except Saturday. All laboratory work is under the personal supervision of the instructor.

Zoology.

The zoological laboratory comprises two laboratory rooms and a small room for mammals. The laboratory rooms have about 1600 feet of floor space, are lighted by north windows, and are furnished with ebonized oak tables, dust-proof cases for apparatus, and ample shelves and drawers. The rooms are provided with Welsbach and electric lights, and a plentiful supply of water, and tables furnished

with gas. The laboratory will accommodate thirty-two students at one time.

There is a good equipment of microscopes, including a large Zeiss microscope, fitted with apochromatic objectives and compensating eyepieces, dissecting microscopes, a Minot-Zimmerman microtome, a paraffin bath of special design, which will accommodate twenty-two workers, incubator, water-still, and the usual minor apparatus, glassware, and reagents for class work and investigation. There is a collection of Zeigler's embryological models and a number of Auzoux models, including the large model of the human brain. There is a large collection of fishes and amphibia, and a constantly increasing number of anatomical and embryological preparations.

The laboratory is well provided with the means for studying living animals and their development. There is an open air aquarium twenty-three feet long, and thirteen smaller ones indoors for frogs, turtles, etc. Provision is made for maintaining sixteen small aquaria and hatching jars with running water.

For lecture purposes there is a Colt projection lantern and a good collection of lantern slides.

The library contains recent important books of reference, a few monographs of special groups, full files of several and the current issues of a large number of the more important morphological and physiological journals. The most important books are kept in the laboratory for convenient reference.

Athletics.

Wholesome athletics are essential to a full college life, and are encouraged under the supervision of Director Chez. Teams in foot ball, base ball, basket ball, track, and tennis are organized each season and trained by Director Chez and Coach Forkum.

Beginning with this year, two field days will be held annually, in the fall and spring terms. Indoor meets will be held during the winter term for the class championship.

Through the generosity of the Hon. George C. Sturgiss, the athletic field has been provided with a grand stand, at a cost of one thousand dollars, which will add greatly to the enjoyment of athletic sports and their profit to university life.

All field sports are under the control of the Committee on Athletics.

Gymnasium.

The gymnasium includes all of the first story of Commencement Hall, and is well furnished ,with Indian clubs, dumb-bells, wands vaulting, horizontal, traveling and parallel bars, finger, wrist and

hand machines, flying rings, chest and intercostal machines, quarter circle, adjustable ladder, climbing ladder, plain rope trapeze, traveling rings, striking bags and drum, boxing gloves, hammer and shot, heavy bells, medicine ball, lockers, large plunge bath and shower baths, horse, batteau boards, jumping standards, stands, and basket ball outfit.

Young women have the same advantages in the gymnasium as young men, certain hours being reserved and regular classes formed for them.

UNIVERSITY FEES AND EXPENSES.

Except in the School of Music and in the School of Fine Arts, tuition is free to West Virginia students.

The tuition charged students from other states is:

$5.00 per quarter in the Preparatory School.
$5.00 per quarter in the Commercial School.
$8.00 per quarter in the College of Law.
$12.50 per quarter inthe other colleges.

The matriculation fee is $5.00, payable upon entering the University by all students except cadets and those whose work is exclusively in music or art. Unless a student remains out of the University more than three years, the matriculation fee is paid but once by each student.

The contingent fee is $3.00 per quarter, payable at the beginning of the quarter by all students except cadets and those whose work is exclusively in music or art.

Any student in the School of Music who is not a resident of West Virginia, and who pays at least $16.00 a quarter for music, is permitted to take, in addition to music, one credit course each quarter free of charge, or two credit courses at one-half the usual charges, but in either case such student shall pay the contingent fee of $3.00 a quarter.

A fee of $2.00 each term is charged for registration and the issuance of class cards. This fee is remitted to all students who procure class cards during the first three days of the fall quarter, the first day of the winter quarter, and the first day of the spring quarter. It is exacted in all other cases whatsoever. Class officers will issue class cards only on presentation of the ticket from the registrar and the treasurer, and, after the limit of time above mentioned, this ticket must bear the treasurer's receipt for this fee. Students whose work is exclusively in music or art, or in both, are xecused from payment of the $2.00 registration fee.

The diploma fee is $5.00, payable upon graduation by all students. This fee is to cover the cost of the diploma.

Students in laboratory courses and in typewriting pay special fees to cover the cost of materials used.

A gymnasium fee of $1.00 is required of all cadets during the winter quarter.

The School of Music, the School of Oratory, and the School of Fine Arts are partly supported by the special fees charged. These fees, which are moderate, are stated in connection with the announcement of these departments.

Board and Lodging.

Board and lodging together may be obtained in Morgantown for $3.50 per week. Most students, however, pay from $3.75 to $4.50 per week. Furnished rooms may be obtained in private families at from $1.00 to $1.25 per week. Board in students' clubs costs from $2.50 to $3.00 per week; in private families, from $3.00 to $4.00.

Estimated Expenses For a Year of Nine Months.

Room Rent	$ 36.00 to	$ 45.00
Board	90.00 to	108.00
Washing	9.00 to	13.00
Text-books	8.00 to	30.00
Contingent fees	9.00 to	9.00
	$152.00	$205.00

To this estimate must be added matriculation, tuition and laboratory fees, in the case of students who are required to pay them, and also traveling expenses, clothing, and miscellaneous expenses, which depend largely upon the tastes and habits of individual students.

Text-books are kept for sale in the University book store and are furnished to students at cost.

State cadets are furnished their text-books, stationery, and uniforms free and are exempt from the payment of matriculation and contingent fees.

ACCREDITED AND RECOGNIZED PREPARATORY SCHOOLS.

The University is a part of the public school system of the state, and desires that its relations with the other parts of the system be as close and intimate as possible. The Committee on Classification and Grades has full charge of all matters pertaining to accredited and recognized schools. The committee consists of Professors Hodges, Hare, Deahl, Jones, and Callahan. School superintendents, principals, or boards, desiring to have their schools placed on the accredited or recognized list, should make application to Professor J. N. Deahl, sub-committee on accredited and recognized schools.

Accredited preparatory schools are those whose graduates have a sufficient number of credits to admit them to the freshman class. (As the requirements for admission to the College of Engineering are all prescribed courses, it is possible that a graduate of an accredited school may not have some of the prescribed work, and so not be able to enter the freshman class in that college.)

Recognized preparatory schools are those whose graduates have not had a sufficient number of credits to admit them to the freshman class, but receive credit toward admission for the work certified.

Diplomas or certificates of a general nature will not be accepted but certificates setting forth the work of the student in detail will be required in every case. The University provides a special form for this certificate, copies of which may be obtained at any time upon application to the President of the University or chairman of the Committee on Classification and Grades. A supply should be kept constantly on hand by the principal of each accredited or recognized school.

The list of accredited and recognized preparatory schools at present is as follows:

Accredited Preparatory Schools.

Allegheny Collegiate Institute,.....Alderson, W. Va.
Morris Harvey College,.....Barboursville, W. Va.
Berkeley Military Academy,.....Martinsburg, W. Va.
Broaddus Classical and Scientific Institute,,.....Clarksburg, W. Va.
Charleston High School.....Charleston, W. Va.
Clarksburg High School,.....Clarksburg, W. Va.
Fairmont High School,.....Fairmont, W. Va.
Huntington High School,.....Huntington, W. Va.
Linsly Institute,.....Wheeling, W. Va.
Martinsburg High School, ...Martinsburg, W. Va.
Morgantown High School,.....Morgantown, W. Va.
Moundsville High School,.....Moundsville, W. Va.
Parkersburg High School,.....Parkersburg, W. Va.
Pittsburg Central High School,.....Pittsburg, Pa.
Salem College,.....Salem, W. Va.
Scottdale High School,.....Scottdale, Pa.
Sistersville High School,.....Sistersville, W. Va.
State Normal School,.....Athens, W. Va.
State Normal School,.....Fairmont, W. Va.
State Normal School,.....Glenville, W. Va.
State Normal School,.....Huntington, W. Va.
State Normal School,.....Shepherdstown, W. Va.
State Normal School,.....West Liberty, W. Va.

Southwestern State Normal School.....California, Pa.
Uniontown High School,.....Uniontown, Pa.
Wheeling High School,.....Wheeling, W. Va.

Recognized Preparatory Schools.

Charles Town High School,.....Charles Town, W. Va.
Ceredo High School,.....Ceredo, W. Va.
Connellsville High School,.....Connellsville, Pa.
Davis Free School,.....Piedmont, W. Va.
Elkins High School,.....Elkins, W. Va.
Fayetteville High School,.....Oak Hill, W. Va.
Grafton High School,.....Grafton, W.Va.
Harrisvillle High School,.....Harrisville, W. Va.
Hinton High School,.....Hinton, W. Va
Mannington High School,.....Mannington, W. Va.
McMechen High School,.....McMechen, W. Va.
Mt. Wesley High School,.....Berkeley Springs, W. Va.
New Cumberland High School,.....New Cumberland, W. Va.
Pennsboro High School,.....Pennsboro, W. Va.
Point Pleasant High School,.....Point Pleasant, W. Va.
Salem High School,.....Salem, W. Va.

RULES CONCERNING ADMISSION, REGISTRATION, AND SCHOLARSHIP.

The Committee on Classification and Grades has supervision of the admission, registration, advanced standing, classification, and scholarship of all students. The following are the general regulations relating thereto:

Admission.

Candidates for admission to the University must present certificates of good moral character and, if from other colleges or universities, must present letters of honorable dismissal.

Candidates for admission who come from other institutions of learning without letters of honorable dismissal may, at the discretion of the registrar, be allowed to matriculate provisionally. In every such case, the registrar will himself make immediate inquiry of the institution from which the applicant comes concerning his standing as a student in that institution If a certificate of honorable dismissal cannot be obtained, the matriculation will be canceled and all fees paid by the applicant will be returned.

The course of procedure above prescribed will be followed also in cases of students from accredited schools, who offer themselves for matriculation without the regular certificate as prescribed on page 33 of this catalogue.

Matriculation and Registration.

In order to gain admission to the University, the student must first report at the President's office in Science Hall. A blank will be furnished, which on being signed will be taken to the registrar. That officer will then assign the student to a class officer, and will certify to the treasurer the fees, if any, which are to be paid. On the payment of these fees the student will be aided in the selection of his studies by the class officer and will be assigned to the proper classes. No student is permitted to become a member of any class until his registration is completed.

All students are required to register at the beginning of each term.

Entrance Credits.

1. Certificates of entrance credits must be on the blank form prescribed by the Committee on Classification and Grades, or on a similar form, so that credit values may be readily computed.

2. The chairman of the committee, or any member acting in his stead, may list and certify the credits of any applicant for admission to the University when such credits are from an accredited school and in proper form, and are sufficient in number to entitle the applicant to classification as a freshman, or first year classman. Certificates from schools not on the accredited list must be approved by the committee.

3. Certificates from schools not showing sufficient number of credits to entitle the applicant to admission to the University, will be referred to the principal of the Preparatory School.

Registration.

1. The maximum number of courses which any student may carry is four; the minimum, three.

2. When a student registers for four full courses in any quarter the maximum number of full courses for which he may register the succeeding quarter is three.

3. No course for which credit has already been given shall be taken as one of the minimum number of courses prescribed, unless by special permission of the Committee on Classification and Grades.

4. When a student is carrying the maximum number of full courses allowable under the preceding rules, he may take in addition thereto the fractional courses offered in chapel and military science, provided that no student shall have credit for more than twelve courses in one year of three consecutive quarters, unless he be a cadet, in which case he may receive credit for not more that twelve and one-half courses in one year.

5. The committee will consider the question of granting per-

mission to any student to carry more than the prescribed amount of work. only on the presentation of a petition approved and signed by the class officer, and accompanied by a statement of the student's record for the preceding quarter. Such petition must be presented within seven days after the day set in the catalogue for the opening of the quarter.

6. Fractional courses in the College of Arts and Sciences will not be counted until they amount to a full course.

Special Students.

As a rule, special students must be over twenty-one years of age, but, in exceptional cases, permission to register as special students will be given to students under that age.

Special students other than law students may be assigned at the discretion of their class officers to classes for which they apply, on their own statement, that they are prepared to take the work. It is understood that admission to any class rests entirely with the instructor in charge, and further that admission to any class when so granted does not necessarily imply credit for prerequisites.

Advanced Standing.

All applications for advanced standing in college work must be made to the Committee on Classification and Grades not later than two weeks after the applicant's registration. When certificates of work done elsewhere are offered, the committee will consider them, and, if they are adjudged sufficient, the credits they call for will be certified to the registrar by the chairman of the committee. If no certificates are offered, or those offered are not considered sufficient for the credits asked, the applicant will be sent by the committee to the heads of the various departments in which credit is sought, who will report after examination, to the committee, on the form furnished, the numbers, names, and values of the courses, if any, for which the applicant is entitled to credit. The applicant shall, at the discretion of the committee, have the privilege of presenting his certificates to the heads of the departments, who may give them such recognition in connection with the examination as they see proper. When the credit to be given, if any, has been determined, it shall be reported by the head of the department to the chairman of the committee, on the form provided, always under seal, and in no case must information of such credit be given to the applicant before the report has been sent to the committee. Before credits in this way are certified to the registrar, all certificates must be returned to the chairman of the committee, and by him placed on file.

Classification.

1. No student shall be classified as a freshman who is conditioned in more than three preparatory courses.

2. No student shall be classified beyond the freshman class until all preparatory conditions are removed.

3. No student shall be classified as a sophomore until he has received credit for at least seven and a half courses.

4. No student shall be classified as a junior until he has received credit for at least nineteen courses.

5. No student shall be classified as a senior until he has received credit for at least thirty courses.

6. Classification of students for publication in the catalogue shall be made on the basis of the work to their credit at the close of the fall quarter each year, except in the case of students entering later in the year.

Scholarship.

1. Students are graded on a scale in which one hundred per cent is regarded as perfect and seventy per cent as a passing grade.

2. Any student who fails to make a standing of sixty per cent on each of two or more courses, or who fails to make an average standing of sixty per cent in all of his courses for any quarter, shall be suspended from the University for the succeeding quarter, unless he shall be relieved from the operation of this rule by the Committee on Classification and Grades. Every application to the committee for relief from the operation of this rule must be accompanied by a full report on the case by the student's class-officer.

If a student suspended by this rule re-enters the University and again becomes subject to it, his suspension shall be indefinite.

3. If the final grade of any student for any course is below sixty it shall be recorded as a "failure," and the student must take the course again if he desires credit for it. If the final grade is sixty, or over, but below seventy, it shall be recorded as a "condition," and the student shall have the privilege of a second examination, which must be taken at the time designated by the instructor, and applied for not later than three days after the opening of the succeeding quarter. A condition not removed within the term following the one in which it was imposed becomes a failure. If the final grade after a second examination is again below seventy it will be regarded as a "failure."

4. If a student fails to register promptly at the beginning of any quarter, a deduction of two per cent from the final grade in every subject shall be made for each exercise missed, for all absences not more than seven in number, unless such absences are excused by the

committee. If the absences are more than seven in number, full credit for the course will not be given unless such absences are excused by the committee and the work missed made up to the satisfaction of the instructor.

5. The permission of both class officer and instructor shall in all cases be necessary for the withdrawal of a student from any class, and after six weeks of any quarter have elapsed, the permission of the Committee on Classification and Grades must also be obtained.

If a student discontinues a course without permission as above, the standing shall be reported to the registrar as zero. If the student attends the course throughout the quarter and is absent from examination, without permission, the instructor shall count the examination as zero, and report the final grade as one-half the recitation grade. If the student is unavoidably absent from examination and has a recitation grade of eighty-five, or over, the instructor may report the recitation grade as the final grade in the subject. If the recitation grade is under eighty-five and the absence from examination is for reasons satisfactory to the instructor the fact will be recorded on the card returned to the class officer, and the student shall have the privilege of taking the examination at a later time.

In every case, except as above, the class card must bear a final grade, and the class officer's report to the registrar must show a final grade.

All instructors are expected to report at the end of each term grades in all courses taken with them and not hold them over to a later term or report them as incomplete.

6. In case of the withdrawal of a student from the University the class officer shall report the fact in writing to the Committee on Classification and Grades, together with a full statement of the reasons for such withdrawal and circumstances attendant thereon. If in the judgment of the committee the reasons given for withdrawal are insufficient, the student will be dealt with as subject to the sixty per cent rule. (See rule 1 above.)

Theses.

If a thesis is required by the class officer of a candidate for the bachelor's degree, the student will observe the following regulations:

Theses must be typewritten with black non-copying record ink on Crane's Japanese linen paper, of quality 24 pounds to the ream, folio size. This paper, of right quality and correct size, viz., 8x10 inches, may be obtained at the University book room, or at any bookstore in Morgantown. A margin of one and one-fourth inches must be left at the left edge of each sheet, and a margin of three-fourths of an inch on the other edges. The title page should follow, mutatis mutandis, the sample title page on the bulletin board in the Library.

When the thesis is typewritten and ready for binding, the student will secure the written approval of the professor under whose direction the thesis has been prepared and the librarian's receipt for the thesis fee. The thesis will then be presented to the Committee on Classification and Grades. The thesis must be in the hands of this committee at least thirty days before the date on which the degree is to be conferred.

The Committee on Classification and Grades will not receive a thesis from any student until he has received credit for thirty-four college courses.

Discipline.

The rules and regulations which students are required to observe are few, simple, and reasonable —punctuality and regularity in attendance upon all required exercises; reasonable diligence in the performance of the work prescribed; abstinence from drinking, gambling, and like gross vices; and civil, orderly conduct generally.

Students who cannot, or will not, comply with these requirements will not be allowed to remain in the University.

All matters of discipline are in charge of he University Council.

GENERAL INFORMATION.

Chapel Exercises.

The regular University work of each day of the week, except Saturday, begins with chapel exercises. These exercises consist of singing, reading the Scriptures, and prayer. The service is conducted by the chaplain of the University, or by some one designated by him. The singing is in charge of the director of the School of Music. In addition to these exercises, the chaplain delivers a course of lectures each quarter on such subjects as the origin, structure, literature, history, languages, versions, institutions, personages, influences, etc., of the Bible. Students who enroll for these courses and comply with such requirements as may be prescribed by the chaplain, are given credit for one-third of a course for each quarter. Appropriate text books are used in addition to the lectures.

Attendance upon chapel exercises is voluntary; but patrons of the University who wish the students under their charge to attend these exercises may have them enrolled by making such desire known to the University chaplain.

Christian Associations.

The Young Men's Christian Association of the West Virginia University was organized for the purpose of encouraging active Chris-

tian work among its own members and of promoting the spiritual growth of all the young men of the University.

Regular meetings are held every Friday evening at 6:15 in the Association room. All young men of the University who are members of evangelical churches are eligible to active membership in the Association; and young men who are not connected with any church may become associate members. A four years' course of Bible study is maintained by the Association. Delegates are sent each year to the various student conventions.

An advisory board chosen by the Association and composed of members of the faculty, prominent business men of the town, and students, has general control of the affairs of the Association.

The Young Women's Christian Association was organized April 19, 1900. Membership is open to young women of the University on the same terms as those stated above for the Y. M. C. A. Regular devotional meetings are held every Friday at 4 P. M. in Columbian Hall.

Other Societies.

1. The Columbian Literary Society. Regular meetings every Friday night in its own hall in Martin Hall. Membership open to all students of the University.

2. The Parthenon Literary Society. Regular meetings every Friday night in its own hall in Martin Hall. Membership open to all students of the University.

3. The Debating Association of West Virginia University. Organized for the purpose of fostering interest in general debate and for promoting annually a series of inter-collegiate contests.

4. The Choral Society. Regular meetings every Monday at 7:30 P. M., in Commencement Hall. Membership open to all students in the School of Music and all others interested.

5. The Athletic Association. Organized for the purpose of encouraging and developing the athletic interests of the University. Incorporated under the laws of West Virginia. Membership open to all students of the University.

6. The Students Publishing Association. Organized for the purpose of publishing the college papers. At present there are published the Athenaeum, a weekly newspaper, and the Monongalian, a quarterly literary magazine.

7. The Engineering Society. Regular meetings the first and third Friday nights of each month in room 14, Science Hall. Membership open to all students in the College of Engineering and Mechanic Arts.

8. The Aurora Grange, Number 372, Patrons of Husbandry. Regular meetings every Tuesday night in the lecture room of the Ex-

periment Station. Membership open to all students in the College of Agriculture and to others who may be elected.

9. The English Club. Regular meetings on the first Thursday of every month.

10. Cercle Dramatique Francais. Regular meetings on the third Tuesday of every month.

11. The West Virginia University Law Society. Regular meetings at 9 A. M. every Saturday during the term. Membership open to all students in the College of Law.

Prizes.

All contestants in any of the contests in oratory, declamation, or debate, must have received credit for at least one course in elocution. This rule applies to all collegiate contests, inter-society and other, but not to contests in the Preparatory School.

No composition, in whole or in part, shall be submitted in competition for two prizes.

Only undergraduate students are eligible for any prize offered.

No student shall be eligible to enter any contest who has not been a resident student in this University for at least one quarter preceding the quarter in which the contest is to be held, and who is not a resident student in good standing in the University in the quarter in which the contest is held.

No successful contestant may become a second time a competitor for the same prize.

The conditions upon which the awards in the several contests are made may be learned upon application at the President's office or to the members of the Committee on Ways and Means.

The following prizes are open to students in various departments of the University:

I. The Inter-Society Prizes.

Prizes aggregating one hundred and fifteen dollars are awarded annually by the Board of Regents of the University to the literary society whose representatives excel in declamation, original oratory, essay writing, and debate.

II. The Regents' Prize in Composition.

A prize of fifty dollars is awarded annually by the Board of Regents of the University to the student in any one of the regular college courses who shall write the best essay on a topic selected by the Committee on Ways and Means. The subject for, 1906-7 is "Domestic Life in the Eighteenth Century." (The subject is intended to apply to our own country.)

III. The Elkins Prize in Greek.

A prize of sixty dollars to the student who makes the highest average grade in the first college year's work in Greek and a prize of forty dollars to the student who makes the next highest grade in the same work have been offered by Hon. Stephen B. Elkins, United States senator from West Virginia.

IV. The Jas. F. Thompson Prize in Anatomy.

A prize of twenty-five dollars, the gift of Mr. James F. Thompson, of Martinsburg, W. Va., will be awarded annually to the undergraduate student who does the best work in anatomy for three quarters.

V. The Regents' Prizes in Declamation.

The Board of Regents of the University annually awards to the student in the Preparatory School who excels in declamation, a prize of thirty dollars, and to the one who ranks second, a prize of twenty dollars.

VI. The Edward Thompson Company Prize.

The Edward Thompson Company offers for the year 1906-7 to the student in the senior law class who shall write the best essay on some subject in law, to be selected by the faculty of the College of Law, a prize, consisting of a set of Encyclopedia of Pleading and Practice, in twenty-three volumes. The value of this work is $138.00.

VII. The Bryan Prize in Political Science.

The Hon. William J. Bryan has given a sum of money the annual income of which is to be offered as a prize to the student in the University who shall write the best essay on some subject in the science of government. The amount of the prize for the present is fifteen dollars. The subject for 1906-7 is, "All Corporations doing Interstate Business should be under Federal control."

VIII. The Tax Commission Prize.

The members of the State Tax Commission, W. P. Hubbard, Henry G. Davis, John K. Thompson, L. J .Williams, and J. H. Holt, have donated the sum of $1,250, the income of which is to be used as a prize for the "best original work bearing on matters of taxation in West Virginia." The conditions of competition are determined by the Faculty. The amount of the prize at present is $70.00. For the year 1906-7 the prize will be offered for an essay on the subject,, "The Principles and Problems of Assessment."

Church Halls.

Several religious denominations have manifested an active interest in establishing church halls in Morgantown for the purpose of providing homes for students during their stay in the University.

The Episcopal Hall was established in 1895 by the Rt. Rev. George W. Peterkin, Bishop of West Virginia, to provide a home for young men studying for the ministry under his direction, and for any other students of the University who may choose to reside there. He did this in preference to establishing a separate church college, which would have necessitated the duplication of the plant already established at the University. The Hall is a comfortable home-like building of forty rooms, heated by steam and lighted by electricity, under the care of a proctor, who resides in the Hall. The primary object of the Hall is to secure for the student, not only the attractive corporate side of college dormitory life, but also some of the comforts of home life.

Woman's Hall.

At a meeting of the Board of Regents of West Virginia University in June, 1903, a large building at the north edge of the campus was leased for the purpose of a woman's hall, and Miss Susan Maxwell Moore was elected dean of women. The hall and annex together with an adjoining cottage, furnish rooms for about fifty young women students, all of them under the care of Miss Moore. The hall has been refurnished throughout. This new arrangement will give the University more direct charge of young women students than it has had hitherto. The cost of rooming and boarding is moderate.

Boarding and Rooming Places.

The Y. M. C. A. and Y.W. C. A. of the University have charge of the matter of boarding and rooming places, under the general direction of the faculty. They will collect and keep a complete list of boarding and rooming places and committees will be present in the association rooms on the second floor of Martin Hall during the opening days of each term to give aid and information to students.

Persons desiring information in advance of their arrival in Morgantown may address Mr. H. L. Griffin, 182 Front street, Morgantown, W. Va., or Miss Crystal Courtney, Morgantown, W. Va., who will cheerfully reply to all inquiries.

Committees from the Y. M. C. A. and Y. W. C. A. meet new students at trains and render them every assistance possible in getting settled in Morgantown.

Aid for Students.

The Committee on Students' Aid undertakes to assist earnest and worthy students, who are dependent upon their own efforts for their education, to obtain various forms of employment in Morgantown, which may not interfere with their studies and will help to defray their expenses.

This committee also has charge of all requests which come to the University for students to fill various positions. Calls of this kind, especially upon the engineering department, are frequent.

The establishment of a fund is contemplated which, under proper conditions, will be loaned to students who would otherwise be unable to complete their course. Contributions to this fund, which will be under the direction of a board of trustees, are solicited. Communications in regard to contributions should be directed to the President.

Y. W. C. A. Self Help Committee.

There are many young women who would enter the University if they could secure worthy employment paying enough to meet a part of the expenses incurred by living away from home. The Young Woman's Christian Association, through its self-help committee has undertaken to meet this demand. An employment bureau has been established where the ladies of Morgantown who desire such help as a University woman could give may become acquainted with the students who wish to work; thus two great needs are met.

The work offered is light housework, assisting at social functions, tutoring, mending, caring for children, sewing, etc. The remuneration depends upon the kind of work done, but one is usually paid by the hour.

For further information address,—Miss Rachel Whitham, Y. W. C. A. Employment Bureau, Beverley Avenue, Morgantown, W. Va.

Teachers' Bureau of Information.

The Teachers' Bureau of Information, under the direction of the Department of Education, has for its aim:—

1. To keep a record of the graduates of the University who wish to teach, to gather information as to their academic and professional qualifications and personal fitness for school work, and to recommend for vacancies those who seem most likely to prove themselves efficient.

2. To keep a similar record of alumni who wish to be transferred to other positions.

3. To assist boards of education and other school officials in securing teachers and to co-operate with teachers' agencies in placing graduates of the University.

Students desiring recommendation for positions as teachers should do at least one year's work, or three courses in education. Those desiring recommendation for a position in a normal school or as principal or superintendent of schools should do at least two years' work, or six courses in education.

No student is assured a position. General letters of recommendation are not given to students. Information obtained from professors and others is regarded as confidential. No charge is made for any services rendered. Blanks for registration will be furnished on application. The following is the committee on recommendation: Dr. D. B. Purinton, T. E. Hodges, J. N. Deahl, Sec.

I. THE COLLEGE OF ARTS AND SCIENCES.

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL. D., President and Professor of Philosophy.

POWELL BENTON REYNOLDS, D. D., Chaplain, and Professor of Economics and Sociology.

ALEXANDER REID WHITEHILL, Ph. D., Professor of Chemistry.

JAMES SCOTT STEWART, M. S., Professor of Mathematics.

SAMUEL B. BROWN, A. M., Professor of Geology and Mineralogy.

ROBERT ALLEN ARMSTRONG, A. M., Professor of the English Language and Literature.

ROBERT WILLIAM DOUTHAT, Ph. D., Professor of the Latin Language and Literature.

THOMAS EDWARD HODGES, A. M., Professor of Physics.

CHARLES HENRY PATTERSON, A. M., Professor of Rhetoric.

FREDERICK WILSON TRUSCOTT, Ph. D., Professor of Germanic Languages and Literatures.

JOHN BLACK JOHNSTON, Ph. Professor of Zoology.

JAMES MADISON BURNS, U. S. A., Professor of Military Science and Tactics, and Commandant of Cadets.

HENRY SHERWOOD GREEN, LL. D., Professor of the Greek Language and Literature.

JASPER NEWTON DEAHL, A. M., Professor of Education.

JOHN LEWIS SHELDON, Ph. D., Professor of Bacteriology.

JAMES MORTON CALLAHAN, Ph. D., Professor of History and Political Science.

ANDRE BEZIAT de BORDES, Ph. D., Professor of Romance Languages and Literatures.

ANTHONY WENCEL CHEZ, Director of Physical Training.

JOHN NATHAN SIMPSON, M. D., Professor of Anatomy and Physiology.

JOHN HARRINGTON COX, A. M., Professor of English Philology.

WALTER LYNWOOD FLEMING, Ph. D., Professor of History.

WAITMAN BARBE, Litt. D., Associate Professor of the English Language and Literature, and Assistant to the President.

FREDERICK LAWRENCE KORTRIGHT, D. Sc., Associate Professor of Chemistry.

C. EDMUND NEIL, A. B., Associate Professor of Elocution and Oratory.

WILLIAM JACKSON LEONARD, Associate Professor and Head of School of Fine Arts.

JUSTIN FRANK GRANT, Ph. B., M. D., Assistant Professor of Anatomy.

GEORGE PERRY GRIMSLEY,, Ph. D., Special Lecturer in Economic Geology.

CHARLES COLLIER HOLDEN, A. B., Instructor in Romance Languages.

THOMAS CARSKADON JOHNSON, A. M., Instructor in Botany.

SIMEON CONANT SMITH, A. M., Instructor in Rhetoric.

WILLIAM MICHAEL BAUMGARTNER, A. B., Instructor in German.

ARTHUR LEE POST, A. M., Instructor in Bacteriology and Anatomy.

WILLIAM HENRY WHITHAM, A. M., Assistant in Physics and Geology.

DRUSILLA VICTORIA JOHNSON, A. M., Assistant in Greek and Mathematics.

LOUISE FERRIS CHEZ, Assistant Director of Physical Training.

ENTRANCE REQUIREMENTS.

The requirements for admission to the College of Arts and Sciences are as follows:

SUBJECTS	Number of courses prescribed	Maximum allowed	Minimum electives allowed
English	9	9	0
Latin	6	9	1
Greek	0	6	3
French	0	6	3
German	0	6	3
Mathematics	6	8	1
Botany and Zoology	0	3	1
Physics	0	2	1
Physiology	0	1	1
Physical Geography	0	1	1
Chemistry	0	3	2
Drawing	0	3	1
History	2	6	1
Civil Government	0	1	1
Total	23	64	20

Twenty-three courses prescribed; thirteen courses elective; thirty-six courses required.

A course, as defined below under the various subjects for admission, represents the amount of work that may be done in a secondary school in the minimum time—one term (twelve weeks), class meeting five times a week, in periods of from forty-five minutes to one hour in length. Three courses in any subject as outlined below are the equivalent of one and one-fourth units, as defined by the North Central Association of Colleges and Preparatory Schools and the thirty-six courses required for admission to the West Virginia University are the full equivalent of the fifteen units required for admission by the North Central Association of Colleges and Preparatory Schools.

From one to three courses credit for Military service rendered while in the University Preparatory School will be allowed.

From one to four courses credit for chapel lectures taken while in the University Preparatory School will be allowed.

English.

The work in English should cover three years if five periods per week of one hour each can be devoted to it. If fewer or shorter recitation periods are necessary, it should extend over four years.

Grammar and Composition.—The aim of the instructor in teaching grammar should be to lead the student to a correct use of grammatical forms in speaking and writing, rather than to a mere knowledge of the definitions and rules of technical grammar. Words should be studied in their relation to one another in the sentence and sentences should be considered as related parts of the paragraph. Constant use should be made of selections from the best modern writers, that the student may come in contact with good English as it is used, rather than as dissected by grammarians. Frequent exercises in oral and written composition should be required.

Rhetoric and Composition.—The work in rhetoric should include a study of the sentence, the paragraph, and the theme, with special attention to unity, coherence, and emphasis; a study of diction and the figures of speech. Selections from the best authors should provide the student with illustrative examples in this work and frequent written exercises should be required. Subjects for composition should be within the range of the student and of such nature as to arouse his interest. This work should afford a drill in narration, description, and exposition.

The student should do some composition work every day; he should do it with care and be judged by it. The daily exercise should be simple, based on some of his school duties and usually designed for another teacher, but each student should write at least one theme a week for the teacher of English. This composition should be carefully read and criticised by the teacher and then corrected by the student.

Literature.—The study of literature should go hand in hand with the study of composition; one should strengthen and supplement the other. In the study of a production, three things should receive special attention—the meaning of the author, the method of the author, and the style of the author. The student should be required to prepare oral or written reports on books selected for reading. It is expected that the applicant will have read these books appreciatively and will have made himself familiar with the subject-matter and the form of each work. The reading should be connected, in reasonable measure, with the lives and characters of the authors read and with the history of their times.

For 1906, 1907, and 1908 the following classics are recommended. For reading: Shakespeare's Merchant of Venice and Macbeth; The Sir Roger de Coverley Papers in The Spectator; Irving's Life of Goldsmith; Coleridge's The Ancient Mariner; Scott's Ivanhoe and The Lady of the Lake; Tennyson's Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur; Lowell's The Vision of Sir Launfal; George Eliot's Silas Marner. For study and practice: Shakespeare's Julius Caesar; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America; Macaulay's Essay on Addison and Life of Johnson.

Although the books mentioned above are recommended as preparation for this part of the requirement, they are not prescribed. Books of equal merit, covering a similar range of literary types, will be accepted as equivalents.

It is recommended that in connection with the reading of classics, the memorizing of notable passages,in both prose and poetry, should form a regular exercise throughout the whole preparatory period. This is all-important for the development of a correct taste in language and literature.

In the study of literature in secondary schools, very little should be done in the history of literature, except in connection with the masterpieces studied.

Latin.

To entitle a student to credit for the six required courses of preparatory Latin, he should have a thorough mastery of some good first year Latin book, such as Chase and Stuart's First Year in Latin, or Bennett's Foundations of Latin. He should also have read and parsed, in addition to the above, four books of Caesar's Gallic War and three orations of Cicero.

If he desires credit for the maximum number of courses of preparatory Latin (nine), he should have read and parsed, in addition to the above, two others of Cicero's Orations and six books of the Aeneid of Virgil, should have had one year of preparatory Latin composition, such as Collar and Moulton's Preparatory Latin Composition, and should be able to read metrically dactylic hexameter verse.

Greek.

Credit for three courses will be given for the completion of some good text in beginning Greek, such as White's First Greek Book, and one book of Xenophon's Anabasis.

For six courses credit, in addition to the above work, the student should have read Books II., III., and IV. of Xenophon's Anabasis and about fifty pages of select readings from Xenophon and Herodotus. A relative amount of prose composition is required.

French.

To entitle a student to credit for three courses, he should:

1. Know the main principles of French grammar, the regular and most common irregular verbs, etc.
2. Be able to write, in French, sentences of moderate difficulty.
3. Have read at least two hundred and twenty-five pages of modern French prose.

To entitle a student to credit for six courses, he should:

1. Have a thorough knowledge of French grammar and syntax.
2. Be able to write in French on ordinary topics.
3. Understand spoken French well enough to follow a lecture given in that language.
4. Have read about eight hundred pages of French (both modern and classic).

German.

The following is a general outline of the work that will entitle an applicant to credit for three courses in German:

1. A thorough knowledge of elementary syntax.
2. Constant drill in pronunciation and oral translation.
3. Composition, thirty pages.
4. Translation, one hundred and fifty pages.

For six courses credit, the following additional work is required:

Modern prose and familiar poems, three hundred pages.

Advanced syntax.

Intermediate composition, thirty pages.

Mathematics.

The six prescribed courses in mathematics may be made up of three courses in algebra, two courses in plane geometry, and one course in solid geometry, or four courses in algebra and two courses in plane geometry. The maximum number of courses which any student may offer is eight,—four courses credit being allowed in algebra, two courses in plane geometry, one course in solid geometry, and one course in plane trigonometry.

Elementary Algebra.—Credit for three courses will be given for the completion of the work in any standard high school algebra. The text should be supplemented by abundant test exercises. The student should be able to perform all the exercises in such a text with rapidity and accuracy and to solve practical problems readily.

Advanced Algebra.—One additional course credit. This includes, in addition to the above, ratio, proportion, the progressions, the elementary treatment of permutations and combinations, and the bino-

mial theorem for positive integral exponents, as much as is contained in the higher grade texts to logarithms.

Plane Geometry.—Two courses credit. The solution of simple, original exercises and numerical problems,—as much as is contained in Well's, Wentworth's, or Stewart's geometry, or a text-book of like grade. The student should be able to apply the principles of geometry to practical and numerical examples.

Solid Geometry.—One course credit. The properties of straight lines and planes, of dihedral and polyhedral angles, or projections, of polyhedrons, including prisms, pyramids, and the regular solids, of cylinders, cones, and spheres, of sperical triangles and the measurements of surfaces and solids,—as much as is contained in the text-books named above or other standard works of equal grade.

Plane Trigonometry.—One course credit. Solution of plane triangles, with special attention to the development of formulae and solution of trigonometrical equations. The full four courses of algebra should precede the work of this course.

Zoology and Botany.

Work in either of these subjects in order to be credited must have been accompanied by laboratory work. The exact extent of the work which should be done cannot be stated here but, for the maximum credit,it should be as much as a competent teacher,trained in laboratory methods, can accomplish in one year. In estimating the time employed, two hours of laboratory work will be counted as the equivalent of one recitation period. It will be to the advantage of applicants to present their laboratory notes and drawings.

Physics.

The maximum credit (two courses) will be allowed for the requisite time spent upon any standard elementary text-book, if the work is accompanied by individual laboratory work. If insufficient individual laboratory work has been done, only one course credit will be given, but the additional course credit will be allowed if the deficiency in laboratory work is made up at the University. It will be to the advantage of students asking full credit to present their laboratory note books.

Chemistry.

Credit for the maximum (two courses) work in chemistry will be allowed for the completion in a satisfactory manner of any standard elementary work in inorganic chemistry, accompanied by individual laboratory work. The third course (elective) should be a general course in organic chemistry, with individual laboratory work.

Physical Geography and Physiology.

Credit for one course will be given in each of these subjects if taught in a scientific manner in an accredited or recognized secondary school. The use of a standard text should be supplemented by proper illustrative methods and proper observation.

History

For admission to the University two preparatory courses in history are prescribed. These may be either English and American history, or Greek and Roman history. In addition to either or both of these groups, other courses may be presented to the limit of five credits.

A credit implies a course of five hours of recitation each week for twelve weeks (high school work), with careful preparation of each lesson, and the use of a standard text-book under a competent teacher. The mere reading of a text-book without intelligent direction and supplemental work is not satisfactory and is often a waste of time. The work which should be done in the grades below the high school is presupposed but no credit is given.

It is expected that the student will be thoroughly familiar with the important events in the periods of history he offers for credit, and will have a clear knowledge of the general line of development, both political and social. Collateral reading should always accompany the study of the text. Special attention should be given to maps.

The courses offered by the student are to be selected from the following:

History of Greece.
History of Rome.
Mediaeval and Modern History.
History of England.
History of the United States.

The following texts are suggested: Botsford, Morey or Myers on the history of eastern nations and Greece; Botsford, Robinson, Myers, Morey, Seignobos, or Allen on the history of Rome; Myers, West, Robinson, Adams, Thatcher and Schwill, or Munro and Whitcomb, on mediaeval and modern history; Andrews, Larned, Terry, Conan and Kendall, Wrong, Cheyney, Ransome (short history), or Montgomery on English history; McLaughlin, Adams and Trent, Fiske, McMaster, Elson, Larned, Johnston, or Channing, on the history of the United States.

In special cases where sufficient time is given to mediaeval and modern history, together with sufficient supplemental work, two credits may be given instead of one. Where the whole field of general history has been covered with such texts as Myers', Hart's (Essentials), or West's two volume series [(1) "Ancient History," and (2)

"Mediaeval and Modern History"] credit for two courses is given (one credit for the period covered by each volume). Where Myers' one-volume "General History" is supplemented by sufficient additional reading and reports, credit for two courses is given.

Civics.

A study of the government of West Virginia and the nation, and an outline of West Virginia history. An outline knowledge of United States history, and of elementary civics, such as is presented in Forman's "First Lessons in Civics," (or Peterman) is presupposed. In addition the student should be familiar with the outlines of the government of West Virginia, read some popular treatise, such as Harrison's "This Country of Ours," and make a careful study of some good text on the national government, such as Forman's "Advanced Civics" (Century Co.)

Drawing.

To receive entrance credit in free hand drawing, instruction should have been designed to give the student an intelligent and accurate conception of form, light, and shade, and the ability to express simply and directly such objects as natural and geometric form, still life, architectural details, and casts from nature, the antique, and life.

The training of the eye to observe with understanding, rather than the teaching of any particular method of expression, should be the aim of the instructor. No mechanical aids should be employed The pencil is recommended as the simplest and most convenient medium for elementary work. It is desirable that students seeking credit for drawing shall submit their work in addition to their general certificate.

DEGREES.

Bachelor of Arts and Bachelor of Science Degrees.

A baccalaureate degree in the College of Arts and Sciences is conferred upon any student who satisfies all entrance requirements and satisfactorily completes forty-two college courses, selected in accordance with the following provisions:

The subjects of study are arranged in three groups—

I. LANGUAGE: Latin, Greek, French, Spanish, Italian, German, English.

II. SCIENCE: Mathematics and Astronomy, Physics, Chemistry. Geology, Botany, Horticulture, Zoology, Anatomy and Physiology, Bacteriology.

III. PHILOSOPHY: Philosophy. Education, History, Political Science, Economics, Sociology.

Requirements.

I. GENERAL REQUIREMENTS:

1. Major: 9 courses in one group, which may be
   (a) 9 courses in one subject, or
   (b) 6 courses in one subject and 3 courses in another subject.
2. Minor: 6 courses in another group.
3. Sub-minor: 3 courses in remaining group.

A thesis may be required at the option of the class officer, in which case it shall count as one of the forty-two courses required.

II. SPECIAL REQUIREMENTS:

1. For the degree of A. B.; 2 courses of rhetoric unless anticipated by examination. 12 courses in Latin (including required preparatory courses), or 6 courses in Greek (and the 6 preparatory courses in Latin); and 3 courses in a modern language.

2. For the degree of B. S.:
   (a) 2 courses of rhetoric unless anticipated by examination; 6 courses of German and 3 courses of French, or 6 courses of French and 3 courses of German; 3 courses of mathematics.
   (b) The major in the science group.

III. The additional number of courses necessary to make a total of forty-two courses may be selected from the general University courses, with the approval of the class officer and the Committee on Classification and Grades.

Partial Schedule for all Students in the A. B. Course.

Freshman.

	Fall	Winter	Spring
9:35	Latin 7 or 10; or Greek 1	Latin 8 or 11; or Greek 2	Latin 9, or 12; or Greek 3
10:35	English 10	English 11	
11:35	Mathematics 7; or Science 1	Mathematics 8; or Science 2	Mathematics 9; or Science 3

The laboratory work of the science courses will be taken in the afternoon.

Sophomore.

	Fall	Winter	Spring
9:35	Latin 10; French 1, or German 1	Latin 11; French 2, or German 2	Latin 12 French 3; or German 3
10:35	Greek 4	Greek 5	Greek 6
1:35	Laboratory Science	Laboratory Science	Laboratory Science

Latin 10, 11, 12 are to be taken now if not formerly or if the student has not now credit for three courses of Greek.

Partial Schedule for all Students in the B. S. Course.

Freshman.

	Fall	Winter	Spring
9:35	German 1; or French 1	German 2; or French 2	German 3; or French 3
10:35	English 10	English 11	
11:35	Mathematics 7	Mathematics 8	Mathematics 9

Sophomore.

	Fall	Winter	Spring
8:35	German 4; or French 4	German 5; or French 5	German 6; or French 6
9:35	French 1; or German 1	French 2; or German 2	French 3; or German 3

Master of Arts.

The degree of Master of Arts is conferred upon graduates of West Virginia University or of other institutions of equal grade upon the following conditions:

1. The candidate must pursue studies in residence at this University for at least three quarters.

2. The application of the student to become a candidate for the degree of Master of Arts must be accompanied by the proper credentials and a general outline of the course of study.

3. If the application is accepted, the Committee on Classification and Grades will appoint a sub-committee of three, consisting of the

candidate's major professor and two other professors, whose duties shall be:

(a) To arrange and approve a specific course of study.
(b) To act as advisors.
(c) To examine and pass upon the thesis.
(d) To conduct the final oral examination.

4. The candidate shall present nine courses, or their equivalent, at least three of which shall belong to his major subject. In no case shall the aggregate number of major courses be fewer than twelve. The remainder of the student's work shall be in one or more allied subjects.

5. The specific course of study must be presented to the Committee on Classification and Grades within the first four weeks after the opening of the fall term.

6. The candidate shall present a thesis showing marked attainment in his major subject. The thesis shall be submitted for the approval of the Committee on Classification and Grades, at least four weeks previous to the commencement day at which the degree is expected. The thesis shall be presented in such form as the Committee on Classification and Grades shall prescribe and approve.

7. If the thesis is approved, two typewritten or printed copies shall be deposited in the University library at least one week before the degree is to be conferred.

8. The oral examination shall cover the thesis and the major courses pursued by the candidate, or such part thereof as the sub-committee shall deem desirable.

9. The Committee on Classification and Grades will set the time for the oral examination and shall appoint some one to represent them at the examination. The examination must be held at least three weeks before commencement day.

10. The sub-committee will report their opinion of the thesis and the result of the examination to the Committee on Classification and Grades at least ten days before commencement day.

11. No work done before graduation will be credited toward the Master's degree.

12. In case a student has failed to take the M. A. degree within two years after his course of study has been approved, his candidacy shall lapse and can be renewed only upon a new application to the Committee on Classification and Grades.

Master of Science.

The degree of Master of Science is conferred upon students whose baccalaureate degree has been in science, upon the same conditions as those governing candidates for the degree of Master of Arts, stated above.

Doctor of Philosophy.

The degree of Doctor of Philosophy is conferred upon Masters of Arts of West Virginia University, or holders of an equivalent degree, upon the following conditions:

1. Candidates must have spent at least two years in resident study at some university, and must be in residence at this university during the last three quarters before receiving the degree. The requirements of time, however, are wholly secondary. The degree will not be given for the completion of prescribed work, nor for study during a stated period, but only on the ground of long study and high attainments in one branch of learning.

2. Candidates shall choose a major subject and cognate minor work. To the latter they shall devote not more than one-third of their time.

3. The candidate must prepare a dissertation on some phase of his major subject, which shall give evidence of his power of independent investigation, and shall be a contribution to knowledge.

4. Not later than nine months before the date on which the candidate expects to receive the degree, he shall file with the Committee on Classification and Grades the subject of his thesis, with the approval of his major professor, a full statement of his work in candidacy for the degree, and shall satisfy this committee of his ability to use French and German in his investigation.

5. The thesis shall be presented to the Committee on Classification and Grades at least two months before the date on which the degree is expected. It shall be referred to a committee of three, one of whom shall be a person not connected with the University. If the thesis is approved, the candidate shall proceed to an examination, which shall be conducted by the instructors in charge of his subjects, with the aid of the same committee of three and the Committee on Classification and Grades. The date of the examination shall be determined by the Committee on Classification and Grades.

6. If the candidate satisfactorily passes the examination he shall before receiving the degree, deposit with the librarian of the University a typewritten or printed copy of the thesis, but if the thesis cannot be published before the conferring of the degree, the candidate must either furnish the Committee on Classification and Grades evidence of completed arrangements for publication, or deposit with the treasurer of the University a sufficient sum to cover the cost of publication in approved form. When the thesis is published one hundred copies shall be presented to the University library, and the deposit made with the treasurer will be returned.

DEPARTMENTS OF INSTRUCTION.

In the following announcements unless otherwise noted, each course described is a full course, the class meeting five times a week, Mondays to Fridays inclusive, through one entire quarter. Whenever possible, the quarter during which the course is given, the hour, the name of the instructor, and class room, are stated at the end of the announcement of each course. For convenience it is customary to designate the courses of study by the name of the department and the number of the particular course. Thus the course in psychology is known as "Philosophy 2;" the course in plane trigonometry is known as "Mathematics 9;" the course in electrical measurements is known as "Physics 12," etc .The abbreviations used are: W., Woodburn Hall; S., Science Hall; M., Martin Hall; C.,Commencement Hall; A. Agricultural Experiment Station; S. E., South Fife Cottage G., Gymnasium; L., Library.

NOTE—The departments of instruction are arranged in alphabetical order.

AGRICULTURE.

Credit will be given in the College of Arts and Sciences for five courses in this subject given in the College of Agriculture. See announcements of that college.

ANATOMY AND PHYSIOLOGY.

Credit will be given in the College of Arts and Sciences for courses in these subjects given in the College of Medicine. See announcements of that college.

BACTERIOLOGY AND PLANT PATHOLOGY.

Professor Sheldon and Mr. Post.

The following courses may be taken by undergraduates and graduates in all colleges. Students should consult with the head of the department before registering for courses 5 and 6.

1. General Bacteriology. This course is offered as a preparation for other courses in bacteriology and plant pathology. It may be elected by students who desire a general knowledge of bacteriology and bacteriological technique. Lectures, recitations and laboratory work. Frost's "Laboratory Guide in Elementary Bacteriology" will be used as a text. Prerequisite, two courses in general botany or an equivalent in botany and zoology or in general biology.

Winter, 2:00; Professor Sheldon, 10 A.

2. General Bacteriology. Continuation of course 1.

Spring, hours to be arranged; Professor Sheldon, 10 A.

3. Agricultural Bacteriology. This course will consist of the study of bacteria in their relation to fermentation and decay, to soils and crops, to the pollution of water supplies, to milk and its products, and to the diseases of cultivated plants and domestic animals. Lectures, recitations, and laboratory work. Prerequisite, course 1, or an equivalent.

Spring, 2:00; Professor Sheldon, 10 A.

4. Medical Bacteriology. This is a practical laboratory course supplemented by lectures and recitations. Each student will become familiar with methods of sterilization and disinfection, the preparation and use of culture media, the morphology and life history of the more important non-pathogenic bacteria, and the bacterial analysis of air, soil, water, and milk. Fall, 1:30; Mr. Post, 1 W.

5. Elementary Plant Pathology. Lectures, laboratory and field work on the more important plant diseases. Prerequisites, three courses in general botany, practice in identification of the grasses and the other flowering plants, and one course in plant physiology or their equivalent. Practice in the identification of the fungi is desirable but not required.

Fall, hours to be arranged; Professor Sheldon, 10 A.

6. Advanced Plant Pathology. Original investigation with frequent consultations. Prerequisite, courses 1 and 5, and a reading knowledge of Latin, French, and German. One or more courses.

Throughout the year, hours by appointment; Professor Sheldon, 10 A.

BIBLICAL STUDIES.

Professor Reynolds.

Instruction in this department is given in connection with the chapel exercises. It consists of lectures by the instructor, an outline and notes by the students, text-book assignments, and weekly reviews. The instruction given each quarter is equivalent to one-third of a course. There are four full courses, viz.:

1. The History of the Bible. Origin, authorship, manuscripts, versions, the canon, and the English Bible.

2. The People of the Bible. A sketch of the origin, history, and characteristics of the Hebrews, Israelites, and Jews.

3. The Religion of the Bible. An outline of the Hebraic, or Patriarchal, Mosaic, and Christian dispensations.

4. The Literature of the Bible. The books of the Bible, their authors, contents, purpose, style, and literary form. Course 4 will be given 1906-7 and is divided as follows:

(1) The Historical Books of the Old Testament..Fall, 8:00; C.
(2) The Hagiographa andProphetic Books...Winter, 8:00; C.
(3) The Books of the New Testament.....Spring, 8:00; C.

BOTANY.

Mr. T. C. Johnson.

1. General Botany. Introductory work upon flowering plants, including general structure and relationship of parts and life activities. The laboratory work is supplemented by lectures, field observations, and the study of texts. Fall, 9 A.

2. General Botany. Elementary studies of cryptograms, including general morphology, histology and physiology of representative groups, with especial reference to their economic importance. The laboratory work is supplemented by lectures and assigned readings. Winter, 9 A.

3. Systematic Botany of the Vascular Plants. Laboratory and field work. Prerequisite, general botany or an equivalent. Spring, 9 A.

N. B.—Attention is called to courses in bacteriology and plant pathology.

CHEMISTRY.

Professor Whitehill and Associate Professor Kortright.

1. Inorganic Chemistry. This course is designed for beginners and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties, and compounds of the non-metallic elements, and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Fall, first section, 9:30; second section, 11:30; Professor Whitehill, 20 S.

2. Inorganic Chemistry. This course includes the study of the metallic elements and special attention is paid to the application of chemistry to agriculture, engineering, medicine, and every-day life.

Winter, first section, 9:30; second section, 11:30; Professor Whitehill, 20 S.

3. Organic Chemistry. This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations.

Spring, first section, 9:30; second section, 11:30; Professor Whitehill, 20 S.

On Mondays at 1:30 during the Winter and Spring quarters a special laboratory course is given to accompany courses 1, 2 and 3, which is prescribed for all students who are taking the courses named. Students who have completed these courses elsewhere and have received credit for the same may be admitted to this laboratory course and will receive credit for the work done. This work is conducted jointly in the two large laboratories of the department by Professors Whitehill and Kortright with the assistance of students who have taken advanced work in chemistry. The assistants for 1905-1906 are Mr. C. B. Francis and Mr. F. M. Boyles.

4. Qualitative Analysis. This is a laboratory course, treating of the separation and detection of the common elements. Students taking this course are under the constant and direct supervision of the instructor, and they are expected to be able at any time to answer questions concerning the theory and practice of their work. One-third course.

Fall, Tuesday and Thursday or Wednesday and Friday, 1:30; Professor Kortright, 22 S.

5. Qualitative Analysis. Continuation of course 4. One-third course.

Winter, Tuesday and Thursday or Wednesday and Friday, 1:30; Professor Kortright, 22 S.

6. Elementary Quantitative Analysis. This course includes a small number of simple gravimetric, volumetric, and electrolytic determinations, together with the study of the operations involved. One-third course.

Spring, Tuesday and Thursday or Wednesday and Friday, 1:30; Professor Kortright, 22 S.

7. Analysis of Coal, Coke, and Water. This is a course designed especially for engineering students but open to others who have the necessary preliminary training. One-third course.

Spring, Tuesday and Thursday or Wednesday and Friday, 1:30; Professor Kortright, 22 S.

8. Toxicology. Designed especially for medical students. The course includes a study of inorganic and organic poisons, their physiological effects, and their antidotes. One-third course.

Spring, Tuesday and Thursday, 1:30; Professor Kortright, 22 S.

9. Quantitative Anaysis. The work of this course includes a study of the theory and practice of the quantitative separation and determination of the different elements; the analysis of ores, minerals, and technical products; the proximate and ultimate analysis of

organic compounds; the investigation of foods; sanitary water analysis; gas analysis; and assaying. Several courses credit may be obtained for this work and credit is given each term for the work completed.

Fall, Winter, Spring, 1:30; Professors Whitehill and Kortright, 21 and 22 S.

10. Iron and Steel Analysis. This course includes practice in the analysis of ores, iron, and steel. The special methods employed are those used in the laboratories of the iron and steel works located in West Virginia and western Pennsylvania. One-third course.

Fall, Winter, Spring, Tuesday and Thursday, 1:30; Professor Whitehill, 21 S.

11. Medical Organic Chemistry. A lecture and laboratory course in special subjects, of organic chemistry; as carbohydrates fats, proteids, and foods in general.

Winter, 10:30 to 12:30; Professor Kortright, 22 S.

12. Medical Analysis. The study and practice of the analytical methods used in modern medicine.

Spring, 10:30 to 12:30; Professor Kortright, 22 S.

13. Physical Chemistry. Lectures and recitations giving a non-mathematical exposition of the fundamental principles of chemical theory as developed during recent years.

Fall, 11:30; Professor Kortright, 22 S.

14, 15 16. Organic Chemistry. These courses are intended for students who specialize in chemistry. They consist of two lectures, or recitations, and at least six laboratory hours each week throughout the year.

Fall, Winter, Spring, 8:30; Professor Kortright, 22 S.

17. Chemical Preparations. This course is designed to meet the requirements of students who wish to specialize in chemistry, or who wish to become teachers of the science. Exercises in the construction and fitting up of apparatus will be given, and the chemical manipulation will receive special attention. Quantitative work in the verification of chemical laws will be undertaken and the course will be made as fully illustrative of laboratory processes as possible. One-half course.

Fall, Tuesday and Thursday, 1:30; Professor Whitehill, 21 S.

18. Chemical Preparations. This course is a continuation of course 17. It will include the preparation and properties of some typical organic compounds, and the work will be mostly quantitative in character. One-half course.

Winter, Tuesday and Thursday, 1:30; Professor Whitehill, 21 S.

19. Chemical Calculations. This course is designed for students who wish to study the mathematical principles which are involved in chemical operations. It includes the consideration of questions involving weight and volume reactions, atomic and molecular weight determinations, the methods of calculating the results of analyses, and the various other computations of importance to the student of chemistry. One-half course.

Spring, Tuesday and Thursday, 1:30; Professor Whitehill, 21 S.

20. Special Work. Chemistry offers a wide field for investigation .Special work in any of the various departments of the science may be taken in the laboratory under the direction of the instructors and credit will be given in proportion to the amount of work accomplished. 21, 22 S.

For courses in agricultural chemistry, see announcements of the College of Agriculture.

CIVIL ENGINEERING.

Credit will be given in the College of Arts and Sciences for courses in this subject given in the College of Engineering. See announcements of that college.

ECONOMICS AND SOCIOLOGY

Professor Reynolds.

It is the aim of this department, as at present constituted, to give elementary and practical instructions in economics and sociology, such as will meet the requirements of a good college course and serve as an introduction to special and advanced studies in these branches. The course will be varied from time to time, so as to give students greater scope for their studies and fuller general information in this field. The following courses will be given in 1906-7:

I. Economics.

1. Principles of Economics. An introduction to the study of the general subject of political economy. Special attention is given to the exposition of fundamental laws as operating in the production, distribution, exchange, and consumption of wealth. Instruction is given by means of text-book, recitations, lectures and references to standard works. Fall, 8:30; 12 S.

2. Distribution of Wealth. .The features and tendencies of modern industrial organization; rent, interest, wages, profits, profit-sharing, co-operation, socialism; capitalistic and labor combinations; union of capitalistic and labor combinations; monopolies; state regulations of corporations and industrial organizations. Text-book, lectures, assigned reading, and exercises. Winter, 8:30; 12 S.

3. The Labor Movement. Labor problems; history and status of labor; labor organizations, their origin, development, objects, methods, achievements, and prospects; industrial, social, and political power and influence of labor unions; labor legislation; arbitration and conciliation. Text-book, lectures, assigned readings, and exercises. Spring, 8:30; 12 S.

4. Money and Banking. A discussion of the nature and functions of money; an examination of the monetary system of the United States, with a comparision of the monetary systems of the leading nations of the world; a sketch of monetary theories and proposed reforms; nature and functions of banks, and some requisites for an adequate national currency. Text-book, lectures, and assigned readings. Fall, 2:00; 12 S.

5. Public Finance. A study of public expenditures, sources of revenue, systems of taxation, financial policies, public debts, and public credit.. Text-book, lectures, and assigned readings. Winter, 2:00; 12 S.

6. Public Economics.. An examination of the relations, interests, and rights of the State in regard to economic enterprises; the practicability and expediency of public ownership and control of such enterprises, with a study of the history and results of such control so far as it has been undertaken. Text-book, lectures, and assigned reading. Spring, 2:00; 12 S.

7. History of Economics. An outline of the history of economic conceptions and theories from the earliest times to the present; a sketch of economic literature in Europe and the United States; economic conditions and the rise of industries; modern industrialism, its rise, character and tendencies. Text-book, lectures, and exercises. (Omitted in 1906-7). Spring, 2:00; 12 S.

II. Sociology.

1. Historical Sociology. An outline of theories of the origin and development of the human species; of the origin, location, and characteristics of the different races of men; of the rise and growth of institutions and arts, such as language, government, religion and the various forms of industry. Text-book, lectures, assigned readings and exercises. Fall, 10:30; 12 S.

2. Analytical Sociology. An examination of the structure and functions of contemporary society,—social elements, social forces, social organs, social activities, social conditions, and social products. Text-book, lectures, assigned reading, and exercises. Winter, 10:30; 12 S.

3. Practical Sociology. An outline of the history and work of

organization for social betterment and reform; of contemporary charities, their methods and results, and of the treatment of the dependent, defective, and delinquent classes. Text-book, lectures, assigned readings and exercises. Spring, 10:30; 12 S.

EDUCATION.

Professor Deahl.

The courses offered in this department aim to contribute to the educational influences and to the professional efficiency of the schools of the state in the following ways: 1. To interest those students who may, without intending to use the knowledge in teaching, desire to study the science of education as a part of their general culture course. 2. To afford university students who wish to teach for a time after graduation the means of professional training commensurate with their academic training. 3. To furnish appropriate professional education to university students, and to any experienced teachers of suitable age and attainments, who may desire to fit themselves for teachers, principals, or superintendents of schools.

Students who elect education as their major may combine with it a limited amount of work in psychology, sociology, or philosophy. The required minor may be in any department of the University, but students are urged to do sufficient work in some one department to prepare them to teach a particular subject, as English, physics, mathematics, etc.

1. History of Education, Ancient and Mediaeval. A study in the evolution of ideas and of educational ideals. Education as a social and political factor in the development of civilization. (1) A general survey of Oriental education—the Egyptian and the Hebrew education as types. (2) Greek education, Greek life and ideals, the development of social bonds, individualism, reason, human culture, and moral freedom. (3) Roman education—(a) Pagan schools, (b) Christian schools, (c) Greek influences. (4) Early Christian schools and scholars. (5) Moslem education. (6) The middle ages—(a) the seven liberal arts, (b) the revival of Charlemagne, (c) scholasticism, (d) rise of secular schools, (e) rise of universities. Fall, 9:30; 24 W.

2. History of Education, Modern. A study of the development of modern education in Europe and America. 1. The renaissance. 2. The reformation. 3. Teaching organizations. 4. The developopment of modern educational theory—(a) humanism, (b) realism, (d) the scientific, physiological, psychological, and sociological ideas of education. 5. The development of modern national, state,

and city systems. 6. The development of the modern curriculum and method. Winter, 9;30; 24 W.

3. Modern Educational Theory. The purpose of this course is to trace the development of modern educational thought to the present time. A summary of the theory and practice of mediaeval education will be followed by a study of the educational doctrines as found in the lives and writings of Pestalozzi, Herbart, Froebel, and other reformers. Spring, 9:30; 24 W.

4. Philosophy of Education. This course aims to lay the basis of a scientific theory of education. The process of education is explained from the standpoint of the doctrine of evolution; the principles thus arrived at are applied from the standpoint of the history of civilization, the developing powers of the child, and the cultivation of individual and social efficiency. Fall, 11:30, 24 W.

5. Philosophy of Education. A continuation of course 4. Winter, 11:30; 24 W.

6. Foreign School Systems. The purpose of this course is to make a comparative study of the school systems of France and Germany, together with special features of other continental systems. The practical problems will be examined from the standpoint of American education. Omitted 1906-7.

7. School Administration and Supervision. This course aims to present the different phases of education—legislative, business, executive, and professional. The different forms of control as national, state, county, district, municipal. Functions of school boards, superintendents, principals, teachers. Relation of school officials—board to superintendents; superintendent to teachers, to pupils, to parents. Duties of superintendent or principal in his office, in class room, in teachers' meetings. The superintendent's opportunity to train his teachers. How to estimate a teacher's work. School management, grading, promoting, examinations, records, etc. Libraries and community co-operation as factors in educational work. Spring, 10:30; 24 W.

8. Applications of Psychology in Learning and Teaching. This course will present the principles that control rational learning and successful teaching as far as such principles may be derived from psychological laws. A number of psychological topics—the senses, sensation, perception, memory, imagination, reason, association of ideas, apperception, interest and attention, mental development, will, habit, and character—will be studied. Spring, 8:30; 24 W.

9. School Systems, British and American. This course deals with the development and present status of education in England, Scotland, Canada, and the United States. The practical workings of the systems will be emphasized. Winter, 10:30; 24 W.

10 The Art of Studying and Thinking and Teaching. The aim of this course is to point out how to study, how to direct the work of pupils, how to train pupils to think; to find a scientific method of the recitation and to determine the essential elements of teaching. Students will formulate and discuss lesson plans, observe, so far as conditions will permit, lessons given by regular teachers, and report the same in class. Prerequisites, Philosophy 2 or Education 8, and Education 4 and 5. Spring, 11:30; 24 W.

11. Criticism and Supervision of Instruction. This course is planned for teachers, supervisors, principals, and superintendents of schools. It will make an intensive study and application of some fundamental principles of education in both method and program of studies. Lessons will be planned and then taught with a class of pupils in the public schools of Morgantown. The lessons thus taught will be discussed in conference. The course will afford an opportunity for observation of lessons, practice teaching, and the supervision of instruction. Prerequisite, Education 10.

Fall and Winter, hour to be arranged; 24 W.

12. Seminar. The curriculum of the elementary school.

Fall, 2:00; 24 W.

13. Seminar. High schools and secondary education.

Fall, 2:00; 24 W.

14. Seminar. The rural school—its function, curriculum; state, county, and district supervision.

Spring, 2:00; 24 W.

15. Seminar. Genetic psychology.

Winter, hour to be arranged; 24 W.

Note. Education 12 and 13 will not both be given in any one term.

ENGLISH.

Professor Armstrong, Professor Patterson, Professor Cox, Associate Professor Barbe, Associate Professor Neil, and Mr. Smith.

There are three sections in this department: (1) Rhetoric, (2) English Language and Literature, (3) Elocution.

The courses in this department are open to all students who have completed the entrance requirements in English, but there are certain prerequisites for particular courses.

(Courses 1 to 9 are preparatory.)

Rhetoric.

The aim of this division of English is proficiency in English composition, especially composition in prose.

10. Composition. Daily themes and fortnightly long papers, study of prose masterpieces, conferences, recitations, class criticisms of written exercises, lectures. Required of all candidates for the baccalaureate degree in arts and science.

Fall, 10:30; Professor Patterson, 16 W.
Fall, 11:30; Winter, 9:30; Mr. Smith,, 13 W.

11. Rhetoric. Two or three themes a week, study of prose masterpieces , four long papers, conferences and class criticisms, lectures. Required of all candidates for the baccalaureate degree in arts and science. Winter, 11:30; Professor Patterson, 16 W.
Spring, 9:30; Mr. Smith, 13 W.

12. Argumentation. Study of specimens, practice, lectures. Required of all students who make English their major.

Spring, 11:30; Professor Patterson, 16 W.

13. Exposition. Study of specimens, practice, lectures.

Fall, 11:30; Professor Patterson, 16 W.

14. Description and Narration. Study of specimens, practice, lectures. Winter, 11:30; Mr. Smith, 13 W.

15. Themes. An advanced course. Daily themes are required; the class will meet the instructor twice a week for criticisms and lectures; conferences.

Fall, 9:30; Winter, Spring, 11:30; Mr. Smith, 13 W.

16. The Essay. The essayists of the nineteenth century are studied as illustrating the uses of the essay form and its growth in our literature; writing of typical essays.

Fall, 9:30; Professor Patterson, 16 W.

17. The Short Story. Examples of the various forms are read and methods analyzed; the development of the short story during this century is shown; practice in writing.

Winter, 9:30; Professor Patterson, 16 W.

18. The Poem. The history of versification, lectures, investigation of assigned topics, composition, and criticism.

Spring, 9:30;Professor Patterson, 16 W.

19. The Novel. Examples of the various forms are read and methods analyzed; the development of the novel is shown; practice in the invention and exposition of situation, character, etc. (Omit-

(ted in 1906-7.) Winter, 9:30; Professor Patterson, 16 W.

20. The Letter. Some great writers seen in their letters and a study of their use of this form of composition; practice in writing.
Fall, hour to be arranged; Mr. Smith, 13 W.

21. The Critical Review. The history and principles of literary criticism; study of specimens; practice in writing.
Spring, hour to be arranged; Mr. Smith, 20 W.

23. The Drama. A study of the different forms of the drama in its most successful periods; its development; a view of its present requirements; composition and criticism.
Winter, 11:30; Professor Patterson, 16 W.

24. Style. A study of style in nineteenth century prose; writing of papers in imitation of the masters of prose style; lectures.
Spring, 11:30; Professor Patterson, 13 W.

25. Prose in the Fifteenth, Sixteenth, and Seventeenth Centuries. The beginning of style in English prose.
Fall, 9:30; Mr. Smith, 13 W.

26. Style in the Eighteenth Century. The development of an artistic sense in the writing of English prose.
Winter, hour to be arranged; Mr. Smith, 13 W.

English Language and Literature.

The aims of this division of English are: (a) a scientific knowledge of the origin and development of the English language; (b) a general acquaintance with English literature; (c) a specific knowledge of certain great authors, periods and movements in English literature.

30. Old English. Bright's Anglo-Saxon Reader; the essentials of Anglo-Saxon grammar; translations. Required of all students who make English their major. Not elective for Freshmen.
Fall, 8:30; Professor Cox, 23 W.

31. Old English. Beowulf. Translation, with due attention to text, metre, literary history, etc. Prerequisite, English 30.
Winter, 8:30; Professor Cox, 23 W.

32. Old and Middle English. Cynewulf's Christ and Elene. Critical reading of early middle English texts. Prerequisite, English 30. Spring, 8:30; Professor Cox, 23 W.

34. Historical English Grammar. History of the language; development and decay of inflexions and formative endings; historical syntax, etc. Prerequisite, English 30.

Spring, Monday, Wednesday, and Friday, 11:30; Professor Cox 23 W.

35. The English Language. This course presents a general survey of the history of the English language. It will include a study of the sources of our vocabulary; the growth of the literary language; slang and legitimate speech; euphemism; folk-etymology; transferrence of meaning, etc. Kittredge's "Words and their Ways in English Speech" will be taken as the basis of the course. (Omitted in 1906-7). Fall, 9:30; Professor Armstrong, L.

36. General Survey of English Literature. An introduction to the study of literature. It will include an historical view of the whole field of English literature and the close and critical study of a few classics from each of the great periods of literary development. Required of all students who make English their major.

Spring, 10:30; Professor Armstrong, L.

37. Chaucer. The Canterbury Tales. During the first part of the term the work will be chiefly linguistic with interpretation of passages. The latter part of the term will be devoted to a somewhat rapid reading with such consideration of form, sources, etc., as are necessary to a clear understanding of what is read. Required of all students who make English their major.

Winter, 10:30; Professor Cox, 23 W.

38. The Pre-Shakespearean Drama. This course considers the origin and the development of the English drama, through the miracle plays, the moralities, the interludes, and the plays of Shakespeare's immediate predecessors. A few of the plays will be read critically with regard to language, metre, etc.; lectures.

Fall, 10:30; Professor Cox, 23 W.

39. Shakespeare. The aim of this course is to develop the power to read Shakespeare with intelligent appreciation. A small number of plays will be studied carefully with special attention to exact interpretation and to those peculiarities of language in which Shakespearean usage differs from our own. Required of all students who make English their major.

Fall, 10:30; Professor Cox, 23 W.

40. Shakespeare. This course is a continuation of course 39. Required of all students who make English their major.

Winter, 10:30; Professor Armstrong, L.

41. Shakespeare. A literary course, intended for purposes of general culture. About one third of the plays will be read, with attention to characters, plot development, etc.

Spring, 8:30; Professor Armstrong, L.

42. Milton. This course will consider Milton's poems and the Areopagitica. Early part of the work linguistic; interpretation of passages; consideration of forms, sources, style, etc.; lectures.

Spring, 10:30; Professor Cox, 23 W.

43. The Elizabethan Period. From Tottel's miscellany to the death of Spencer (1557-1599). Among the authors studied are Wyatt, Surrey, Roger Ascham, Foxe, Lyly, Sidney, Marlowe, Hooker, and Spenser. Special attention will be given to Spenser. Shakespeare not considered. [Omitted 1906-7.]

Fall, 11:30; Professor Cox, 23 W.

44. English Literature from the death of Spenser to the closing of the theaters (1599-1642.) Among the authors studied are Bacon, Raleigh, Ben Johnson, Chapman, Beaumont and Fletcher, Middleton, Webster, Massinger, Donne, Herrick, Burton, Ford, and Shirley. Shakespeare and Milton not considered. [Omitted in 1906-7.] Winter, 11:30; Professor Cox, 23 W.

45. English Literature of the Queen Anne Period. The course will deal with those writers who are especially representative of the classical spirit in English literature. Among these may be mentioned Dryden, Swift, Addison, Steele, DeFoe, Pope, and Gay. [Omitted in 1906-7.] Spring, 11:30; Professor Cox, 23 W.

46. English Literature from the death of Swift to the publication of the Lyrical Ballads (1745-1798). Gray, Collins, Johnson, Goldsmith, Cowper, Sherdian, Burke, Burns, and Blake; some attention to lesser writers. Fall, 9:30; Professor Armstrong, L.

47. English Literature from the publication of the Lyrical Ballads to the death of Scott (1798-1832). Wordsworth, Coleridge, Byron, Shelley, Keats, Hazlitt, Lamb, De Quincy, Jane Austen, and Scott; some attention to lesser authors.

Winter, 9:30; Professor Armstrong, L.

48. English Literature from the death of Scott to the death of Tennyson (1832-1892),—the poets. Tennyson, Browning, Arnold, Mrs. Browning, Swinburne, Rossetti, and Morris. [Omitted in 1906-

Spring, 9:30; Professor Armstrong, L.

49. English Literature since 1832,—the prose writers. Carlyle, Macaulay, Ruskin, Arnold, Dickens, Thackeray, Eliot, Stevenson, and others. Spring, 9:30; Professor Armstrong, L.

50. The English Bible. A study of the English Bible as literature; discussion of its literary forms and interpretation of some of its masterpieces. Fall, 10:30; Professor Armstrong, L.

51. The Short Story. The short story as a form of literature. A study of its development and some of its types from Poe to Kipling. [Omitted in 1906-7.] Winter, 9:30; Professor Armstrong, L.

52. American Literature. A brief outline of its historical development and a study of selected works of representative authors. Fall, 8:30; Professor Armstrong, L.

53. The Novel. The study in this course will include the historical development of the novel; its significance; relation to modern life; the types; tendencies; a wide reading of novels; reports; lectures. Winter, 11:30; Professor Cox, 23 W.

54. English and Scottish Popular Ballads. This course will consider the beginnings and development of popular poetry; a wide reading of English and Scottish ballads; interpretation and criticism; reports, by students, on assigned topics; lectures.
Spring, Tuesday and Thursday, 11:30; Professor Cox, 23 W.

55. English Literature. Study of an author. The entire production, or the most important work, of some selected author will be studied to gain a complete view. The author to be studied in 1906-7 is Ralph Waldo Emerson.
Winter, 8:30; Professor Armstrong, L.

Elocution.

The aim of this division of English is artistic expression in all the forms of public speaking.

(NOTE.—The necessity of English literature in connection with the work in elocution cannot be too often impressed. The professor of elocution will recommend no student as a teacher of elocution or as a public reader unless he has had, in addition to his courses in elocution as his major, at least six courses in English literature.)

Requirements for Certificates. Students applying for a certificate in elocution must have reached full senior standing in the College of Arts and Sciences of this University or in some school of recognized equality; all courses in class elocution shall have been completed and a course of private lessons pursued under the direction of the professor of elocution. The amount of private work required will be determined by the individual need of the student.

The following courses are offered, each occupying one college term.

1. Principles of Elocution. A study of vocal organs and muscles; methods of breathing; vocal culture for purity, strength, compass, flexibility, and sustaining power; study and application of vocal elements,—form, degree, stress, quality; first principles of action. Fall, 2:00; Winter, 3:00; Professor Neil, 14 M.

2. Principles of Elocution. Vocal culture continued; study and drill in the vocal elements; pitch, degree, change, melody, time, quantity, pause, movement; completion of principles of action; analysis, preparation and rendition of selections; criticism of application of elements. Spring, Winter, 2:00; Professor Neil, 14 M.

3. Literary Analysis and Rendition. Development of individuality in voice and action; lectures on analysis, mind concentration, memory, scene building, and interpretation; individual study of selections from every style; rendition of prescribed selections and criticism by members of class and instructor.

4. History of Oratory. A philosophical survey of the origin and the history of the oration; a study of the leading orators of the various periods; analysis by each student of the noted speeches of different times and countries; class reviews of the style, diction, depth, clearness, climax, and persuasive power of the orators studied. Fall, 3:00;Professor Neil, 14 M.

5. Original Orations. Lectures on styles of address, kinds of discourse, construction of speeches, ancient, mediaeval and modern oratory, and the sources of eloquence; preparation and delivery of topical speeches and original orations.
Winter, 9:30; Professor Neil, 14 M.

6. Argumentation and Debate. Lectures on extempore speaking, principles of debate, preparation of briefs, arrangement of argument,team work, and rebuttal; extempore speeches and debates required of every student. Fall, 10:30; Professor Neil, 14 M.

7. Advanced Argumentation and Debate. Continuation of course 6. The object of this course is to give the student a mastery over the perplexing technicalities of argumentative laws, to develop a clear, direct, forceful, and persuasive style of speaking, and to perfect the art of team debating.
Winter, 10:30; Professor Neil, 14 M.

8. English Classics. Lectures on Shakespeare, Dickens, Browning, Tennyson, and others; study, interpretation, and memoriter rendition of one of Shakespeare's plays; interpretative analysis of one other play and of selections from other English masters.
Spring, 10:30; Professor Neil, 14 M.

Private Lessons.

In addition to the class work in elocution, a thorough and comprehensive course of individual instruction is offered. Each lesson occupies a full one-hour period, and is devoted to a single individual.

This branch of the work is indispensable to all who would follow any line of public speaking. The instruction may be taken either as single lessons or in courses of one college term each. The latter method is preferred.

Tuition for Private Lessons.

Single Lessons,.....	$2.50
Per College Term, 1 per week.....	20.00
Per College Term, 2 per week.....	35.00

(Note.—At the option of the head of the department, a thesis may be required of all candidates for the A. B. degree, who have chosen English as their major.

FINE ARTS.

Assistant Professor Leonard and Mrs. Hubbard.

Credit will be given in the College of Arts and Sciences for courses not to exceed five in number, taken in the School of Fine Arts. In case credit is asked for the maximum number of five courses, these must include the courses in the history of art. See announcement on a later page.

GEOLOGY AND MINERALOGY.

Professor Brown, Mr. Grimsley and Mr. Whitham.

1. Physical Geography. An elementary course for which no credit is given toward a college degree, but which must be taken before students are admitted to other courses in this department, unless they have its equivalent elsewhere.

Spring and Fall, 11:30; Mr. Whitham, 30 S.

2. Meteorology. Man and nature; the economic products of the earth; meteorological instruments and methods. Davis' Physical Geography. Prerequisite, Physical Geography and Physics 1.

Winter, 11:30; Mr. Whitham,30 S.

3. General Geology. A general course in dynamic and structural geology; economic applications of geology will receive special attention; numerous excursions will be made; recitations, lectures, and field work. Le Conte's Elements of Geology. Prerequisites, Chemistry 1, 2, Physics 2.

Fall, 11:30; Spring, 10:30; Professor Brown, 30 S.

4. Palaeontology. The progress and development of plants and animals through the different ages of the earth: recitations and lectures. For illustration in this subject the University has an equipment of many thousands of fossils, casts, and models. Le Conte's Elements of Geology. Prerequisites, Zoology 1 and Botany 2.

Winter, 11:30; Professor Brown, 30 S.

5. Economic Geology. Common rock and vein-forming minerals; physical geography and geology of the United States; the origin of ore deposits; mining terms and methods; metalliferous deposits; recitations and lectures. Tarr's Elements of Economic Geology. Prerequisite, Geology 3.

Fall, 10:30; Spring, 11:30; Professor Brown, 30 S.

6. Economic Geology. The fuels—coal, oil, and natural gas—soils, clays, and fertilizers, precious stones and building stones; recitations and lectures. Tarr's Elements, and Merrill's Stones for Building and Decoration. Winter, 10:30; Professor Brown, 30 S.

7. Mineralogy. Crystallography; physical qualities of minerals; description of minerals consisting of basic elements to the silicates; recitations, lectures, and practical determinations. The University has a good collection of minerals for practical instruction. Moses' Elements of Mineralogy.

Fall, 8:30; Spring, 8:30; Professor Brown, 30 S.

8. Mineralogy. The silicates and hydrocarbon compounds and their determination. Moses' Elements of Mineralogy.

Winter, 8:30; Professor Brown, 30 S.

9. Economic Geology. A study of the occurrence, origin, distribution, and methods of working the economic materials of the stratified and igneous rocks, as limes, cements, salt, coals, clays, oil and gas, copper, gold, silver, etc.; lectures and recitations. This course is intended for all students interested in the knowledge of the mineral wealth of this country and especially of West Virginia. Ries' Economic Geology of the United States. The various government and state reports, mining journals, and technical treatises will be used as references. Winter, 9:30; Mr. Grimsley, L.

GERMANIC LANGUAGES AND LITERATURES.

Professor Truscott and Mr. Baumgartner.

NOTE.—The text-books named in the following courses may be changed at any time, but the grade and character of the work outlined in each will remain the same.

Students taking German as a major will be expected to take as a minor three courses in Anglo-Saxon and three courses in the history of Germany.

1. Elementary German. The object of the course is to acquaint the student with the elements of the grammar, to give him a reading knowledge of the easiest German prose, and as much practice as possible in pronunciation. Thomas' Grammar, Part I; Super's Elementary German Reader.

Fall, first section, 9:30; Mr. Baumgartner; second section, 10:30; Mr. Baumgartner. Winter, 11:30; Professor Truscott, 19 W.

2. Elementary German. A continuation of course 1; reading of easy prose and poetry; several poems will be memorized. Super's Elementary Reader, Grimm's Maerchen, Hervey's Exercises to Thomas' Grammar.

Winter, first section, 9 :30; Mr. Baumgartner; second section, 10:30;Mr. Baumgartner. Spring, 11:30; Professor Truscott, 19 W.

3. Elementary German. A continuation of course 2; reading, dictation; elementary work in composition, accompanied by a review of the main points of the grammar; Immensee; Hoeher als die Kirche; L'Arrabiata; Hervey's Exercises to Thomas' Grammar.

Fall, 11:30, Professor Truscott; Spring, first section, 9:30; second section, 10:30; Mr. Baumgartner, 19 W.

4. German Prose. Rapid reading of prose by modern authors to familiarize the student with the more general phases of the language. Fall, 8:30; Mr. Baumgartner, 19 W.

5. Composition. Translation of English prose into German; discussion of grammatical points in connection with the translation; dictation; study of the irregular verbs. Harris' Prose Composition;Thomas' Grammar, Part II.

Winter, 8:30; Mr. Baumgartner, 19 W.

6. German Poetry. Translation of two long poems; reading and memorizing of several well-known poems. Von Klenze's Deutsche Gedichte; Hermann und Dorothea; Trompeter von Saekkingen.

Spring, 8:30; Mr. Baumgartner, 19 W.

7. Advanced Prose. Reading of historical and narrative prose. Freytag's Aus dem Staat Friedrichs des Grossen; Scheffel's Ekkehard; Sudermann's Frau Sorge.

Fall, 8:30; Professor Truscott, 18 W.

8. Advanced Composition. Dictation; oral practice based on Bronson's Colloquial German; Jagemann's Prose Composition.

Winter, 8:30; Professor Truscott, 18 W.

9. Heine. Study of his life; reading from his prose and poetry; Reisebilder; Die romantische Schule; Das Buch der Lieder.

Spring, 8:30; Professor Truscott, 18 W.

10. Lessing. Study of his life; reading of Miss Sarah Sampson; Minna von Barnhelm; Emilia Galotti; Nathan der Weise.

Fall, 9:30; Professor Truscott, 18 W.

11. Goethe. Study of his life; reading of Werther's Leiden; Iphigenie auf Tauris; Tasso; Egmont.

Winter, 9:30; Professor Truscott, 18 W.

12. Schiller. Study of his life; reading of Don Carlos; Wallenstein; Wilhelm Tell.

Spring, 9:30; Professor Truscott, 18 W.

13. History of German Literature. This course deals in outline with the history of the literature, its beginnings and development and lays stress upon the prominent authors and chief epochs. Assigned private reading in the various standard histories of German literature. Translation and discussion of pieces representative of the different writers and periods. W eekly themes in German on assigned subjects. Fall, 10:30; Professor Truscott, 18 W.

14. Continuation of course 13.

Winter, 10:30; Professor Truscott, 18 W.

15 Continuation of course 14.

Spring, 10:30; Professor Truscott, 18 W.

16. Scientific German. Intended for students in the scientific courses who have had at least a year of elementary German. The purpose is to teach the students to read at sight scientific articles in German. Hodges' German Science Reader; Cohn's Ueber Bakterien. Winter, 11:30; Mr. Baumgartner, 19 W.

17. Journalistic German. Newspaper and magazine articles on various subjects. Prehn's Journalistic German; Lodeman's Germany and the Germans; New York Staatszeitung.

Spring, 11:30; Mr. Baumgartner, 19 W.

20. Middle High German—Grammar. Bachman's Mittelhochdeutsches Lesebuch. Readihgs and translation into modern German from Das Nibelungenlied; Der arme Heinrich; Walter von der Vogelweide. History of the literature.

Two or three times a week throughout the year at an hour to be arranged. Professor Truscott, 18 W.

GREEK LANGUAGE AND LITERATURE.

Professor Green and Miss Johnson.

1. White's First Greek Book (Chapters I-XL). This course is for beginners. The work covers pronunciation, accent, declensions and conjugations, etymology of words, and simple translations from

Greek into English and from English into Greek to illustrate the principles of grammar as given in the text

Fall, 9:30; Miss Johnson, 7 M.

2. First Book (Completed). A continuation of course 1; much attention is paid to the vocabulary; daily exercises in sight reading. The first book of the Anabasis is read in connection with courses 1 and 2. Prerequisite , Greek, 1.

Winter, 9:30; Miss Johnson, 7 M.

3. Xenophon's Anabasis (Books II., III., and IV.). Prose composition; a fuller knowledge of the grammar. Prerequisites, Greek 1 and 2. Goodwin's Xenophon's Anabasis; Goodwin's Greek Grammar; Pearson's Greek Prose Composition.

Spring, 9:30; Miss Johnson, 7 M.

4. Select Readings. Selections from the works of Xenophon and Herodotus; continued sight reading; review of Greek accidence and further study of syntax.

Fall, 10:30; Professor Green or Miss Johnson, L.

5. Lysias' Orations. A study of the form of Greek orations and Lysias's style; collateral library work assigned to each student; sight reading. Prerequisites, Greek 1, 2, 3, and 4, or their equivalent. (Omitted in 1906-7.)

Winter, 10:30; Professor Green or Miss Johnson, L.

2. Homer's Iliad or Odyssey (Books I., II., and III.) and Homeric Verse. All the text is read metrically. Etymology, mythology, and prosody are studied in connection with the text. Seymour's Iliad. Collateral reading: Jebb's Introduction to Homer; Gladstone's Time and Place of Homer. Prerequisites, Greek, 1, 2, 3, 4, 5.

Spring, 8:30; Professor Green or Miss Johnson, L.

7. Lucian's Shorter Dialogues. Given alternately with Greek 5. The Dialogues of the Dead and other short dialogues will be read. Selections from Lucian by Williams.

Winter, 10:30; Professor Green, L.

8. Aeschines Against Ctesiphon. The aggressions of Philip of Macedon; the political institutions of Greece and the Constitution of Athens are studied in connection with the text. Aeschines against Ctesiphon, by Richardson. Fall, 9:30; Professor Green, L.

9. Plato's Apology and Crito. A study of Athenian methods of judicial procedure and criminal jurisprudence will accompany the reading of the Apology. Dyer's Apology and Crito.

Fall, 11:30; Professor Green, L.

10 and 11. Greek Literature in English Translation. Courses of lectures tracing the development of artistic forms of literary ex-

pression among the Greeks. Some of the masterpieces of Greek literature are read in standard English translations. Frequent written reports by members of the class upon assigned readings. These courses are intended for mature students of considerable experience in the study of language and literature, but no knowledge of the Greek language is required. Capps' Homer to Theocritus. Collateral reading: Jebb's Greek Literature, Mahaffey's History of Greek Literature. Course 10 will be devoted to epic and melic poetry and the choral ode. Course 11 will deal with the drama and with the development of literary prose.

Course 10, Fall, 8:30; Course 11, Winter, 8:30; Professor Green, L.

12. Myths and Legends. A study of those myths and legends upon which a large number of ancient and modern classics are based and to which frequent reference is made in English literature. No knowledge of Greek language is necessary. Prerequisite for major credit, Greek 5 or 7. Guerber's Myths of Greece and Rome. Spring, 8:30; Professor Green, L.

13. Aristophanes. The reading of one or more of the plays will be supplemented by lectures on the development of Greek comedy, and the influence of the stage upon the social and political life at Athens. Winter, 10:30; Professor Green or Miss Johnson, L.

14. Euripides. One or more of the tragedies will be translated in class. Other plays by the same author will be read before the class by the instructor or studied by members of the class with the aid of standard translations. Incidental study of Greek metric. Winter, 11:30; Professor Green, L.

15. Demosthenes on the Crown. Stress is laid on correct use of synonyms, Greek rhetoric, and oratory; frequent sight translations. Demosthenes on the Crown, by Goodwin.

Winter, 9:30; Professor Green, L.

16. Aeschylus' Prometheus Bound. History of the development of dramatic art among the Greeks; study of the adaptation of epic and lyric forms to the purpose of the drama; much attention is given to the metrical systems of the lyric passages. Allen's Prometheus Bound of Aeschylus.

Winter, 8:30; Professor Green or Miss Johnson, L.

17. The Antigone of Sophocles. A study of the Greek trilogy; lectures on the Greek theatre. D'Ooge's Antigone of Sophocles. Spring, 10:30; Professor Green, L.

18. New Testament Greek. A comparative study of the synoptic gospels. In the translation, pure, idiomatic English of the nineteenth century is required. Westcott and Hort.

Spring, 9:30; Professor Green, L.

19. Selected Odes of Pindar. Much attention is given to mastering, not theoretically, but practically, the form. The poems are read rhythmically over and over with the purpose of developing an appreciation of the lyrical perfection of these exquisite works of art. Seymour's Odes of Pindar. Spring, 11:30; Professor Green, L.

20. Seminary in Greek. Papers and discussions on assigned topics; larger opportunities for original investigation and specialization. Graduate students and those well advanced in their college course, who desire to become specialists in this department, should take this course. Credit is given for one-third of a course each quarter, or more, if the work accomplished justifies it.

Fall, Winter, and Spring, bi-weekly, 2:00-4:00; Professor Green, L.

HISTORY AND POLITICAL SCIENCE.

Professor Callahan and Professor Fleming.

The courses offered in this department are arranged under four general titles: (1) European Continental History, (2) English History, (3) American History, and (4) Political Science.

Instruction is given by lectures, text-book work, assigned collateral readings; preparation of papers, syllabi, and maps; special reports, recitations, and informal conferences.

Students are encouraged to observe and to read contemporary history and politics.

An association of those who are especially interested in the work of the department meets fortnightly for part of the year to hear the discussion of special topics and current problems.

An afternoon hour is designated for conferences and for direction of library work.

Courses in European Continental History.

For preparatory courses, see announcement of the Preparatory School.)

Students who select continental European history as their principal study are advised to take at least one year in French, or German, in the early part of the University course.

Among the books of reference, which every student will often need to consult, are Ploetz's Epitome of Universal History and a good historical atlas. [Putzger's Historischer Schul-Atlas is one of the best.]

7 and 8. Essentials of History. A comprehensive survey of the general field of history, emphasizing the epochal events. The purpose of this course is to furnish a substantial basis for the more

intensive period courses in college history, and to give to those who have not time for the period courses an acquaintance with the essential facts of history and an understanding of the continuity and inter-relation of historical events and the operation of cause and effect in the story of human development.

7. The Orient, Greece, and Rome.
Winter, 8:30; Professor Fleming, 22 W.

8. Mediaeval and Modern Ages.
Spring, 8:30; Professor Fleming, 22 W.

9. History of Oriental Civilization. This is a general culture course, and a fitting introduction to the study of history. It begins with a survey of primitive society and traces the rise and development of human institutions. It directs especial attention to the early institutional history of China, Japan, India, Chaldea, Assyria, and Egypt, gives a survey of their contributions to civilization and traces the development and influence of contact with the civilization of the West . It closes with a sketch of Hebrew history, an institutional study of the Bible, and the organization of the Christian Church. Professor Fleming, 22 W.

10. History of Greece.. In this course the central idea will be the development of civilized life as expressed in art, literature, and philosophy, in personal character and social customs, as well as in political ideals and institutions. An attempt will be made to gain an appreciation of what the Greeks were and what they gave to civilization. Professor Fleming, 22 W.

11. History of Rome. A sketch of the Roman republic with special reference to the expansion of the Roman power, and an intensive study of the empire. The aim in this course will be to trace the development of Roman institutions, character, and civilization, to explain the genius of the Roman people for organization and government, and to call attention to the contributions of Rome to modern civilization.
Spring, 8:30; Professor Fleming, 22 W.

12. Mediaeval History. In this course, which begins with the period of institutional chaos following the breakup of the Roman empire and ends with the rise of modern states, especial attention is devoted to the three prime factors in the history of the middle ages, —the surviving civilization of Rome, the Christian church, and the German people. Political history , except in the case of France, is subordinated to the study of social and economic institutions,—the church, feudalism, the crusades, schools and learning, commerce, and the rise of cities. Fall, 10:30; Professor Fleming, 22 W.

13. The Renaissance and the Reformation; 1300-1648. A transition from mediaeval to modern history. The development of the forces of modern civilization. Beginning with a survey of the economic, political, and intellectual conditions at the close of the middle ages, this course gives the student general knowledge of the rise and decline of the Papal hierarchy, the renaissance in Italy and Germany, the Protestant revolution in the principal European states, the counter-reformation, and the religious wars to the Treaty of Westphalia. Prerequisite, History 2.

Winter, 10:30; Professor Fleming, 22 W.

14. Continental European History since 1648. This course covers the rise of Prussia, the period of French ascendency, the Revolutionary and Napoleonic eras, the period of reaction, the unification of Germany and Italy, and the progress of democracy in the nineteenth century.

Spring, 10:30; Professor Fleming, 22 W.

In courses 12, 13, 14, special emphasis is given in alternate years to the history of France, or Germany.

15. Continental Europe in the Nineteenth Century. This course is devoted to an intensive study of political and social conditions in the more important states of Europe during the last hundred years. Somewhat extended reading will be required of students taking this course and the results of this reading will be presented in the form of papers and reports.

Hours to be arranged; Professor Fleming, 22 W.

16. Seminar in European History. [Only for advanced students in history.] Hours to be arranged; Professor Fleming, L.

Courses in English History.

Students will find it convenient to own Low and Pulling's Dictionary of English History and Gardiner's Atlas.

17. History of England to the Tudors. A course in the general and institutional history of England. Special attention is given to political, economic, and social life and development; the more important subjects in constitutional history are considered, showing how England learned to govern herself. [This course and courses 18 and 20 furnish a good foundation, or back-ground, for the study of American history.] Fall, 10:30; Professor Callahan, 4 M.

18. History of England from the Tudors to the Present Time. A continuation of course 10. The upbuilding of the British Empire. Winter, 10:30; Professor Callahan, 4 M.

19. English Social and Industrial History. A survey of the facts of social and industrial evolution and their relation to political

history and the interpretation of present conditions; a study of the enlargement of English life and the growth of English institutions. Special attention is given to such topics as the manor system, the merchant and craft guilds, the growth of national economy, the rise of the factory system, and the industrial revolution.

Spring, 10:30; Professor Callahan, 4 M.

20. English Historical and Practical Politics: English Constitutional Law and History. [Students who take this course should possess a general outline knowledge of English history and if possible should take course 18 or 19 first.] A systematic study of the origin and development of the constitution and political institutions of England, and of the fundamental principles of English constitutional law, from the earliest settlements to the present time. This course prepares the student for the courses in American constitutional history. It traces the struggles and steps by which England learned to govern herself, and to govern others. The most important documents are studied. Especial attention is given to the elements, nature, and working of the English government as it exists today.

Courses in American History.

(For introductory courses, see announcement of the Preparatory School.)

All students of American history should have Channing and Hart's Guide and McCoun's Historical Geography of the United States.

21. American Colonial History (1492-1776). (1.)European background of American history; the economic and political conditions in Europe before the search for new trade routes; (2.) the evolution of discovery and settlement; (3.) the growth of settlements into colonies the origin and development of American institutions; views of colonial, social and economic life; the conflict with new France; relation of the colonies to England; the gradual adaptation of European civilization to American conditions, resulting finally in separation of the colonies from the mother country.

Fall, 9:30; Professor Callahan, 4M.

22. The Formation of the Union: American Political History (1776-1829). The revolution, the critical period, the formation of the constitution, the organization of the government, the struggle for neutrality and the develoment of nationality, the expansion of the Union, and the triumph of democracy. Special attention is given to political and constitutional development, and to international relations, but industrial and social growth is also treated.

Winter, 9:30; Professor Callahan, 4 M.

23. Division and Reunion: American Political History Since 1829. Economic questions and the slavery contest; the growth of sectional differences, culminating in the secession movement; the civil war and its problems, the overthrow of the slave power, and readjustment; a brief survey of the political and social questions since the civil war, and of the development of the resources of the country. Spring, 9:30; Professor Callahan, 4 M.

[In courses 21, 22, and 23, while special emphasis is laid on political and constitutional history, much attention is given to social and economic conditions.]

24. Reconstruction and Later American History. (1) Conditions in the southern states in 1865; the problems of reconstruction; the various theories; the struggle between Congress and the President over reconstruction; negro suffrage and white disfranchisement; misgovernment during reconstruction; the overthrow of the reconstruction governments and the undoing of reconstruction. (2) Social, economic, and political conditions and changes in the United States from 1865 to the present time.

Fall, 9:30; Professor Fleming, 22 W.

25. History of American Territorial Expansion (1775-1904). A study of the evolution and development of the American expansion policy from a few weak settlements to a world power. The causes, movements, motives, methods, politics, and diplomacy connected with the actual occupation and acquisition of territories, and the projects or propositions looking toward territorial acquisitions, dependencies, or establishments; the rapid western movement of strenuous, self-reliant pioneers; settlement and political organization of the acquisitions (status and government); constitutional and administrative questions, etc.; influence of the West in American history; the public domain,—its management and settlement, and its influence on the economic developments of the United States. Professor Callahan, 4 M.

26. History of American Diplomacy and Foreign Policy (1776-1904). A general survey of the negotiations, treaties, arbitrations, congresses, etc., to which the United States has been a party; the fundamental principles of American policy; a study of the most important phases of American international relations; America's influence on international law and diplomacy; the state department and its most distinguished secretaries. [See also Political Science 37]. Winter, 11:30; Professor Callahan, 4 M.

27. The Making of American History as Influenced by Geographical Conditions. A combination of the materials of American history and geography.

Spring, or Summer; Professor Callahan, 4 M.

28. American Development. A practical course on the prominent characteristic movements and fundamental facts of American development. Especially suited to the needs of students who desire a single course that will give them a clearer knowledge of the meaning and scope of history, and some training in the use and interpretation of historical materials. Professor Callahan, 4 M.

29. Economic and Social History of the United States. Economic and social conditions in Europe in the sixteenth and seventeenth centuries; influence on the founding of the colonies; social and industrial conditions in the colonies; disappearance of the frontier; gradual industrial change and corresponding social change; the growth of the democratic spirit; influence of westward expansion, of immigration; revolution in methods of transportation; present day problems.

Winter, 9:30; Professor Fleming, 22 W.

30. The American Revolution and the Making of the Constitution (1775-1789). The controversy between the colonies and England; the political philosophy of the period; the state constitutions the Continental Congress; the formation and defects of the Articles of Confederation; the "critical period;" and the evolution of the American Constitution. Careful study is given to the debates in the Constitutional Convention of 1787, and the political pamphlets, etc., of the period. A seminary course. (Omitted in 1906-7).

Winter, 11:30; Professor Callahan, 4 M.

31. Latin-American History. The object of this course is to present a view of the history of the Latin-American countries from the era of settlement to the present time, special attention being devoted to the work of the great conquerors, the Spanish colonial policy and its results, the problem of the native races, the decay of Spanish power, the revolutions and independence, and the subsequent progress of the republics. Effort will be made to understand the problems, (political, commercial and industrial) now before the Latin-American states. (A knowledge of Spanish will be useful in this course.)

(In alternate years) Spring, 9:30; Professor Fleming, 22 W.

32. History of West Virginia. Co-operative investigations in social, economic, political and constitutional development; state legislation is studied as far as possible from documentary material; considerable attention is given to railroad development and the growth of towns; an effort is made to collect historical material from different parts of the state.

Spring; Professor Callahan, 4 M.

33. A Study of Bibliography and Method. A library and "his-

torical conference" course. Twice a week. Prerequisites, courses 21, 22 and 23. 4 M. and Library.

34. Seminar in American History. A research course supplemented by lectures. Among the subjects recently studied were the Monroe doctrine, relations of the United States with Spanish America, and the American Cuban policy. Students are required to take notes, to investigate assigned topics, and to become acquainted with the original materials which are accessible. Proper attention is given to scientific methods of historical research, construction, and interpretation. Theses in American history are prepared in connection with this work. Professor Callahan, Library.

The attention of students taking American history is invited to the announcement of the Bryan prize on page 42.

Courses in Political Science.

In all these courses, students should have a clear knowledge of the outlines of general history and especially of modern political history. For the advanced courses they are also expected to have a reading knowledge of German or French.

35. American Practical Politics: The Government at Work. A practical study of the actual workings of the government and politics of the United States, both state and national, ("Actual government as applied under American conditions"); the growth, spirit, machinery, operations, and functions of the government, the relations, rights and duties of citizens, the policies of state on great public questions and problems. Especial attention is given to the realities of governments and institutions—to the personal interest and personal action which underlie constitutions and statutes and vitalize governments.

Open to students who have a familiar knowledge of American history, (especially the period covered by course 22), and who have had the preparatory course in civics. [See also courses 20 and 30.] [Hart's Actual Government as Applied Under American Conditions; Bryce's The American Commonwealth.]

Fall, 11:30; Professor Callahan, 4 M.

36. European Historical and Practical Politics. A historical study of the development of the political institutions, constitutional governments, and parties of continental Europe; a comparative study of Greek, Roman, and Teutonic polity and of the governments and parties of the leading countries of modern Europe. Especial attention is given to recent European politics. Open to advanced students who have had thorough courses in European history.

[Woodrow Wilson's The State; A. L. Lowell's Governments and Parties of Modern Europe.]

Winter, 9:30; Professor Fleming, 22 W.

37. Contemporary International Politics. (See also History 26.) Winter; Professor Callahan, 4 M.

38. Science of Government.

Spring, 11:30; Professor Callahan, 4 M.

HORTICULTURE.

Mr. T. C. Johnson.

Credit will be given in the College of Arts and Sciences for courses in this subject given in the College of Agriculture. See announcement of that college.

LATIN LANGUAGE AND LITERATURE.

Professor Douthat.

The seven divisions here presented are intended to be consecutive, but the courses in each division are not graded. Hence a student may enter upon any course of a division, provided he has had at least two courses of the division preceding, or their equivalent.

For courses 1 to 9, inclusive, see announcements of the Preparatory School.

I. Roman Anthology.

10. Cicero's Amicitia and Senectute, with study of synonyms.

Fall, 9:30; 21 W.

11. Horace's Odes and Epodes, with scanning.

Winter, 9:30; 21 W.

12. Mediaeval Latin Hymns, with scanning, or **Horace's Epistles.** Spring, 9:30; 21 W.

Latin composition the last two weeks of each term.

II. Roman Philosophy.

13. Cicero's De Officiis or De Finibus, with study of synonyms. Coordinate with course 5 in Philosophy. Fall, 8:30; 21 W.

14. Seneca's Moral Essays, with a study of his times. Coordinate with course 5 in Philosophy. Winter, 8:30; 21 W.

15. Lucretius' De Rerum Natura, with a study of his doctrines.

Spring, 8:30; 21 W.

Latin composition the last two weeks of each term.

III. Roman History.

16. Cicero's Letters, with a study of the great orator's times. Fall, 10:30; 21 W.

17. Livy, Book XXI or XXII, with a study of Roman history, or , if thought advisable, Sallust and other selections from history. Coordinate with course 11 in department of history. Winter, 10:30; 21 W.

18. Tacitus: Germania and **Agricola,** or his **Historiae** or **Annales,** with a study of the early Empire. Spring, 10:30; 21 W.

Latin composition the last two weeks of each term.

IV. Roman Drama.

19. Plautus: Captivi, Trinummus, and Rudens, with a study of the Roman stage. Fall, 11:30; 21 W.

20. Terence:. Adelphoe, Phormio and Heauton Timoreumenos, with study of Greek and Roman drama. Winter,11:30; 21 W.

21. Seneca: .Medea, Hercules Furens, and Oedipus, with study of tragedy in translation from Greek into Latin. Spring, 11:30; 21 W.

Latin composition or study of manuscripts for the last two weeks of each term.

V. Roman Satire.

22. Horace's Satires, with a study of his times. Fall; 21 W.

23. Juvenal's Satires, with a study of contemporaneous history. Winter; 21 W.

24 Seneca's Apokolokuntosis, and Petronius' Cena Trimalchionis, with a study of Nero's times. Fall; 21 W.

Readings, papers, and letters will take the place of composition in this division.

Hours to be arranged with instructor.

VI. Latin Literature in English Translations.

25. Study of Translations from Virgil or Horace or the Dramatists or Satirists, with preparation of papers and supplemented by informal lectures. Winter, 21 W.

26. Greek and Roman Mythology, or Roman Life, with papers and informal lectures. Winter, 21 W.

27. Roman Political Institutions, with papers and informal lectures, and the Latin epigraphical documents. Spring ,21 W.

These three courses are open to all students who have had at least three courses of college Latin.

Hours to be arranged with instructor.

VII. Comparative Philology.

28. Greek and Latin or other Indo-European Languages Compared, the study being introduced through New Testaments, which can now be had in many tongues.

Term and hour to be arranged with instructor.

This course will be open to those who have already had at least three courses in two different Romance or Teutonic languages.

All examinations for advanced standing in Latin must include Latin composition.

LAW.

Credit will be given in the College of Arts and Sciences for five courses in this subject given in the College of Law. See announcements of that college.

MATHEMATICS.

Professor Stewart and Miss Johnson.

(Courses 1 to 6 are preparatory.)

7. Solid Geometry. Geometry of the prism, pyramid, cylinder, cone, and sphere; practical exercises and problems; Well's Solid Geometry. Fall, 11:30; Spring, 9:30; Miss Johnson, 7 M.

8. University Algebra. Binomial theorem any exponent; theorem of undetermined coefficients; summation of series; differential method; theory and practice of logarithms; logarithmic and exponential series; construction of logarithmic tables; the general equation of the nth degree and solutions of higher numerical equations.

Fall, 10:30; Winter, 11:30; Spring, 8:30; Miss Johnson, 7 M.

9. Plane Trigonometry. Development of formulae; solution of trigonometrical equations; anti-trigonometrical functions; practical exercises and problems. Prerequisite, Course 8. Well's Revised Trigonometry. Fall, 9:30; Winter, 10:30; Professor Stewart, 14 W.

10. Spherical Trigonometry. Development of formulae; practical exercises and problems, with applications to navigation and astronomy. Bowser's Treatise on Trigonometry.

Spring, 2:00; Professor Stewart, 14 W.

11. Plane Analytical Geometry. Cartesian and polar coordinates; properties of conics: circle, parabola, ellipse and hyperbola;

tangents and normals; poles and polars; Nicol's Analytical Geometry.

Fall, 10:30; Winter, 9:30; Spring, 10:30; Professor Stewart, 14 W.

12. Analytic Geometry. Higher plane curves; general equation of the second degree; geometry of three dimensions; ellipsoids, paraboloids, hyperbolic paraboloid. Nicol's Analytic Geometry.

Fall, 2:00; Professor Stewart, 14 W.

13. Determinants. Nature and properties of determinants; Laplace's and Cauchy's method of development; differentiation of determinants. Peck's Determinants.

Winter, 2:00; Professor Stewart, 14 W.

14. Theory of Equations. Complex numbers; solution of higher equations; Cardoan's method for cubic equations; Sturm's theorem; Horner's and Newton's methods of approximation; Fourier's theorem; Macknie's Algebraical Equations.

Spring, 2:00; Professor Stewart, 14 W.

15. Differential Calculus. Differentiation of algebraic and transcendental functions; Taylor's and Maclaurin's formulae; evaluation of indeterminate forms; maxima and minima; tangents and normals; asymptotes; involutes and evolutes; curvature; curve tracing; Taylor's or Osborne's Differential Calculus.

Fall, 8:30; Winter, 11:30; Professor Stewart, 14 W.

16. Integral Calculus. Integration of algebraic and transcendental functions; areas between limits; surfaces and solids of revolution; double and triple integration; center of mass; moment of inertia; intrinsic equations of curves. Taylor's or Osborne's Integral Calculus.

Winter, 8:30; Spring, 11:30; Professor Stewart, 14 W.

17. Elementary Calculus. This is a course designed for students who do not desire courses 15 and 16, but who wish to have some knowledge of the fundamental notions of this branch of mathematics. Many practical problems will be introduced. Prerequisite, course 11. Smith's Elementary Calculus.

Hour to be arranged to suit students; Professor Stewart, 14 W.

Astronomy.

1. Descriptive Astronomy. Young's General Astronomy.

Winter, 3:00; Professor Stewart, 14 W.

2. Descriptive Astronomy. Continuation of course 1. Young's General Astronomy. Spring, 3:00; Professor Stewart, 14 W.

MECHANICAL ENGINEERING.

Credit will be given in the College of Arts and Sciences for certain courses in this subject given in the College of Engineering. See announcements of that college.

MUSIC.

Director Spence.

Credit not to exceed two and one-half courses is given in the College of Arts and Sciences for courses in the science and history of music given in the School of Music. See announcement on a later page.

PHILOSOPHY.

President Purinton and Professor Deahl.

1. Logic and Principles of Science. A study of the processes of conception, judgment, and reasoning; nature and laws of experience, induction, and subsidiary processes, such as observation, experiment, classification, and hypothesis; inductive methods; imperfect inductions and fallacies; elements of deduction and formal logic. Recitations, lectures, and notes by the instructor, and references to standard authorities. Fall, 9:30; Professor Deahl, 24 W.

2. Psychology. An introductory course devoted to the study of the states of consciousness and mental processes, with an outline of the structure and functions of the nervous system; the principles and methods of mental training and the application of psychology to education. Lectures, with seminar work in standard authors.
Fall, 9:30; President Purinton, 10 S.

3. Ethics. A survey of the mental processes that control conduct; fundamentals of morality, the moral faculty, ground of obligation, moral standard, moral law, moral sanction; moral culture; practical morality; personal and social duties; a review of historical ethics. Lectures, with reference to standard text-books.
Winter, 9:30; President Purinton, 10 S.

4. Christian Evidence. An outline of the historical and moral proofs concerning the Christian system; a brief comparative view of other religious systems. Spring, 9:30; President Purinton, 10 S.

5. History of Philosophy. An introduction to the study of philosophy, with an outline of the history of the leading philosophers and schools, ancient, mediaeval, and modern. Lectures, with references to best standard works. Fall, 2:00; 14 S.

6. Mediaeval Philosophy. Especially the influence of Christianity upon philosophy and vice versa, and the rise and content of patristic philosophy. Winter, 2:00; 14 S.

7. The Philosophy of the Renaissance. A special study of the transition from mediaeval to modern philosophy, the struggle against theological domination, and the rise of the natural sciences. Lectures, recitations, and collateral reading. Spring, 2:00; 14 S.

PHYSICAL TRAINING.

Professor Chez and Mrs. Chez.

The purpose of the physical department is the development or restoration of the physical well-being of students attending the University.

A student's success in college depends upon his mental vigor and this in turn is based upon his bodily health. There is no part of the mental training he receives that is independent of the support of the body.

The director examines each student and prescribes exercises for his individual need. Special attention is given to those who are constitutionally weak.

An exhibition of class and apparatus work will be given each year.

Men's Department.

Professor Chez.

Student Leaders of Squads.

Robert Lee Cole—German horse.
Charles Julius Smith—Horizontal bar.
Wilber Earl Cather—Parallel bars.
Stephen G. Jackson—Buck.
Clifford Myers—Tumbling.
Claude H. Layman—Mat work.
Corwin Sage Burns—Vaulting bar.
Samuel Cecil Austin—Flying rings.
Marshall W. McDonald—Ropes and ladders.

The work is graded as much as possible to suit the needs of the students. Careful attention is given to correction of bad postural habits and to all-around development and training of the body. Drills are given in free-hand exercises, dumb-bells, Indian clubs, and wands.

Heavy gymnastics, which includes German horse, parallel bars, horizontal and vaulting bars, tumbling, wrestling, and fencing, is given to the advanced classes.

Recreation in the form of games, such as basket ball, three-deep, slipper, etc., follows the regular class work. Play conduces to health, physical development, and mental relaxation; therefore these games are encouraged after class work.

Women's Department.

Mrs. Chez.

The Swedish system is taught and a graded course pursued. First year students, after a careful anthropometric examination, are given developing exercises in Swedish gymnastics, together with such special work as is suited to individual needs. Following this foundation work, advanced exercises are added, which include drills with dumb bells, Indian clubs, and wands, and the Gilbert fancy steps. Athletic games, such as basket ball and field hockey, are begun the latter part of the first year, and continued throughout the course. Only third and fourth year students are eligible to the Women's "Varsity" teams.

Schedule

Fall Term.

2—3: 3—4: Monday, Wednesday, Thursday.
3—4: Tuesday, Friday.

Public school teachers and pupils.

9:30—10:30: 10:30—11:30 A. M. Saturday.

Winter Term.

11:30—12:30: 2—3: Monday, Wednesday, Friday.
2—3: 3—4: Tuesday, Thursday.

Public school teachers and pupils.

9:30—10:30: 10:30—11:30 A. M. Saturday.

Spring Term.

2—3: 3—4: Monday, Tuesday, Wednesday, Thursday, Friday.

PHYSICS.

Professor Hodges and Mr. Whitham.

1. Elementary Physics. Lectures and recitations four times per week and laboratory one period of two hours per week. Rowland and Ames' Elements of Physics, with other works for reference. Prerequisites, Algebra 3 and Plane Geometry.

Section A. Preparatory to course 6.
Fall, Tuesday, Wednesday, Thursday, Friday, 8:30; Laboratory hours to be arranged. Mr. Whitham, 11 S.

Section B. General course for students who do not expect to take course 6.
Fall, Monday, Wednesday, Thursday, Friday, 8:30; Laboratory, Friday, 1:30—3:30. Mr. Whitham, 11 S.

2. Elementary Physics. Continuation of course 1, which is prerequisite. (Division into sections as in course 1.)

Winter, 8:30; laboratory hours to be arranged; Mr. Whitham, 11 S.

4. Experimental Physics. A laboratory course exclusively, consisting of elementary quantitative experiments. Open to students who do not take course 6. Sabine's Laboratory Course in Physics. Prerequisites, Physics 1 and 2, or equivalent work, and Plane Trigonometry.

May be taken in the fall, winter, and spring quarters. One-third course each quarter. Tuesday, Thursday, 1:30.

Professor Hodges, 1 S.

6. General Physics. Mechanics. Lectures and recitations. Required of candidates for engineering degrees. Ames' Theory of Physics. Prerequisite, Analytical Geometry.

Fall, Monday, Wednesday, Friday, 9:30; Professor Hodges, 11 S.

Laboratory work of course 6. Two exercises weekly.

Hours to be arranged; Mr. Whitham, 14 S.

7. General Physics. A continuation of course 6. Heat, electricity, magnetism. Lectures and laboratory work.

Winter, Monday, Wednesday, Friday, 9:30; Professor Hodges, 11 S.

Laboratory work. Hours to be arranged; Mr. Whitham, 14 S.

8. General Physics. A continuation of course 7. Sound and Light. Lectures and laboratory work.

Students who have not taken course 7 may be admitted to course 8, if they have taken course 6.

Spring, Monday, Wednesday, Friday, 9:30; Professor Hodges, 11 S.

Laboratory work. Hours to be arranged; Mr. Whitham, 14 S.

12. Electrical Measurements. Advanced laboratory work. The student uses measuring instruments of precision, sensitive galvanometers, apparatus for accurate measurements of resistance, current, electro-motive force, induction, magnetic properties of iron, etc. Prerequisite, Physics 7, Mathematics 16.

Hours to be arranged; Professor Hodges, 14 S.

15. Agricultural Physics. Required of agricultural students. Open to all other college students. Prerequisite, Physics 1, or equivalent work elsewhere. King's Physics of Agriculture will be used as a text. Spring, 8:30; Mr. Whitham, 11 S.

17. Dynamos and Motors. Direct current machinery; elements of the general theory of dynamos and motors. Lectures and labora-

tory work. Prerequisite, Physics 7. Course 12 in part may be substituted for the laboratory work of this course. Sheldon's Dynamo-Electric Machinery. Winter, 10:30; Professor Hodges, 11 S.

18. Dynamos and Motors. Alternating current machinery. Prerequisite, course 17. Spring, 10:30; Professor Hodges, 11 S.

20. Special Work. Students desiring to pursue any line of special work in the department of physics will be given opportunity to do so to the extent that the time of the instructors and the laboratory equipment will permit.

ROMANCE LANGUAGES AND LITERATURES.

Professor Béziat de Bordes and Mr. Holden.

French.

1. Elementary Course. Three sections.

(a) Grammar, reading, practice in pronunciation and oral understanding. Béziat de Bordes' Elements of French; Aldrich and Foster's French Reader. Fall, 9:30; Mr. Holden, 2 M.

(b) Rapid reading course. The aim of this course is to enable students to acquire, in a short time, a reading knowledge of French for research work in other departments. No special attention is paid either to oral or to composition work. Béziat de Bordes, Elements of French; Aldrich and Foster's French Reader; Malot's Sans Famille (Thieme edition). Fall, 10:30; Mr. Holden, 2 M.

(c) Conversation Course. In this course the work is carried on mostly in French from the outset, through the natural, or direct method of instruction.

Fall, 8:30; Professor Béziat de Bordes, 11 W.

2. Elementary Course. A continuation of course 1.

(a) Béziat de Bordes' Elements of French completed; Malot's Sans Famille (Thieme edition). Winter, 9:30; Mr. Holden, 2 M.

(b) Halévy's L' Abbé Constantin; Scientific French Reading; Selections from French history. Winter, 10:30; Mr. Holden, 2 M.

(c) Conversation based on Halévy's L' Abbé Constantin; Balzac's Eugénie Grandet.

Winter, 8:30; Professor Béziat de Bordes, 11 W.

3. Elementary Course. A continuation of course 2.

(a) Composition based upon Mérimée's Colomba; About's Le Roi des Montagnes; Feuillet's Le Roman d' un Jeune Homme Pauvre.

Spring, 9:30; Mr. Holden, 2 M.

(b) Molière's Le Bourgeois Gentilhomme; Voltaire's Le Siècle de Louis XIV; Victor Hugo's Hernani; current scientific literature.

Spring, 10:30; Mr. Holden, 2 M.

(c) Conversation based upon George Sand's Nanon; About's Les Mariages de Paris; composition, Larousse's Cours de Style.
Spring. 8:30; Professor Béziat de Bordes, 11 W.

4. Fiction of the Nineteenth Century. Works of Daudet, Dumas, Balzac, Loti, Gautier, etc; composition based upon Larousse's Cours de Style; oral practice; exercises in dictation continued through course 5. For students who have had one year of French. Fall, 11:30; Mr. Holden, 2 M.

5. A Continuation of Course 4.
Winter, 11:30; Mr. Holden, 2 M.

6. An Introduction to Classic Writers. The work is based upon Demogeot's Textes Classiques de la Littèrature Française (Hachette et Cie.); outside reading assigned. Spring, 11:30; Mr. Holden,2 M.

7a. French Literature of the Seventeenth Century. A rapid survy of the works of Corneille, Racine, La Fontaine, Boileau, Bossuet, etc.; lectures, reading, and reports.
Fall, 10:30; Professor Béziat de Bordes, 11 W.

7b. French Rhetoric. The work is based on Larousse's Cours de Style. Material for discussion is furnished by Warren's French Prose and Canfield's French Lyrics. Hours to be arranged.

7c. Dramatic French. Analytic study of French dramatic masterpieces; style, elocution, expression. A reading knowledge and fair pronunciation of French are prerequisites.
Hours to be arranged.

8. French Literature of the Eighteenth Century. Voltaire, Rousseau, and the Encyclopédistes, studied both from the literary and historical standpoint. Lectures, reading and reports.
Winter, 10:30; Professor Béziat de Bordes, 11 W.

9. French Literature of the Nineteenth Century. Napoleonic writers; Chataubriand and the Romantic School; the Parnassian poets. Lectures, readings and reports.
Spring, 10:30; Professor Béziat de Bordes, 11 W.

NOTE.—Courses 1 to 10, with the exception of 7c, will be given in regular order. Students having completed course 9 will be admitted to any of the following electives:

10. Molière, His Life and Work. All the plays of Molière will be read and summarily discussed.

11. Molière. A critical and comparative study of his works.

12. Racine. His works, his models, and his imitators.

13. Victor Hugo. His lyric and satiric poetry as the expression of his personality.

14. Victor Hugo. His novels.

15. Victor Hugo. His dramas.

16. French Writers of the Second Half of the Nineteenth Century.

17. French Civilization and its Influence on French Literature.

18. Historical French Grammar.

19. Old French Readings. La Chanson de Roland; Aucassin et Nicolette.

20. Mediaeval French Dramatic Literature.

20. French Dialects. Gilliéron's Atlas Linguistique. Special attention given to southern dialects.

22. Old Provençal Readings. Appel's Provenzalische Chrestomathie. (2nd edition.)

NOTE.—Courses 7 to 18 will be given in French. Courses 18 to 22 inclusively, may be given in English or French.

Cercle Dramatique Français. In connection with the French work of the department the cercle dramatique offers students an opportunity to improve their pronunciation and general understanding of the language by taking part in the presentation of French plays given at the end of each quarter. Those wishing credit for this work will have to comply with the requirements in course 7c.

Spanish.

Professor Béziat de Bordes.

1. Elementary Course. Grammar and reading, with practice in pronunciation, conversation, and composition. Loiseaux' Spanish Grammar and Reader. Fall, 9:30; 11 W.

2. Intermediate Spanish. Conversation based on readings from the works of modern Spanish authors; composition. Winter, 9:30; 11 W.

3. Modern Spanish Literature. Careful study of works by modern Spanish and Spanish-American writers, such as Nuñez de Arce, Perez-Galdós, Compoamor, Heredia, Trueba, etc, Spring, 9:30; 11 W.

4. Calderon. A rapid reading and discussion, in Spanish of Calderon's masterpieces. Fall, 8:30; 11 W.

5. Cervantes. A critical study of Don Quijote de la Mancha. Winter, 8:30; 11 W.

6. Old Spanish Literature. El Cid. Spring, 8:30; 11 W.

Italian.

Mr. Holden.

1. Elementary Course. Grammar, reading, and composition. It is desirable that students who take this course should have some knowledge of Latin. Fall, 8:30; 2 M.

2. Elementary Course. A continuation of course 1. Winter, 8:30; 2 M.

3. Elementary Course. A continuation of course 2. Spring, 8:30; 2 M.

ZOOLOGY.

Professor Johnston.

The courses in this department are intended to serve as a means of general culture and to prepare students to become investigators and teachers in zoology. A wide field is offered for valuable investigations in the organization, functions, habits, and evolution of animal life. Upon the results of such investigations rest, to a large extent, the sciences of medicine, psychology and sociology. Courses 1, 2, 3, 4, and 5 are of special interest to teachers. Courses 1, 2, 3, 6, 7, 8 are required of students in the six-year medical course.

1, 2 and 3. General Zoology. The laboratory work is arranged from the standpoint of general biology, beginning with the cell and one-celled animals, and going on to forms which illustrate the fundamental types of animal structure. The study of structure is conducted with constant reference to function and adaptation. The lectures of the fall term deal with the structure and physiology of protoplasm and the cell, cell division, reproduction, rise of sex, alternation of generations, symbiosis, commensalism, parasitism, etc. The lectures of the winter and spring terms deal with the general principles of classification and the descriptive zoology of invertebrates and vertebrates. Lectures two hours per week; laboratory, six hours per week.

Fall, Winter, Spring; Monday and Wednesday, 8:30; 17 W.

4. Principles of Biology. This course deals with the conditions of animal life and the means of adaptation. It includes the study of habits, reactions, food relations , coloration, regeneration, etc. ; the course of organic evolution; and the theories regarding the origin of species, heredity , etc. Lectures, demonstrations and assigned readings. Not given in 1906-07.

5. Nature Study. A course for students who are preparing to teach in the public schools. It deals with the purpose, materials,

and methods of nature study work. Lectures, field excursions, preparation and presentation of work by members of the class. Prerequisite, courses 1, 2, 3, 4. Not given in 1906-07. Spring, 17 W.

6, 7, and 8. Vertebrate Morphology. The three courses form a continuous year's work in the comparative embryology and anatomy of vertebrates. The laboratory work includes the study of germ cells, maturation and fertilization, cleavage, gastrulation; the development of the salamander, the chick, and the pig; the dissection of types of vertebrates. The lectures of the fall term deal with the maturation and fertilization of the germ cells, the principles of heredity, and the early development of vertebrates through the formation of germ layers, foetal membranes, and the fundaments of organs. The lectures of the winter and spring terms deal with the development and adult anatomy from the comparative point of view, with especial reference to the progressive modification of organs and the adaption to environment. Lectures, two hours per week; laboratory, six hours per week.

Fall, Winter, Spring; Tuesday and Thursday, 10:30; 17 W.

9. Methods in Zoology. A practical course in the methods of collecting, hatching and rearing, preserving, injecting, and in making microscopic preparations. Open to all majors in zoology who have had courses 1, 2 and 3, and to others by special permission. Credit in proportion to the work done.

Fall, Winter, Spring, 17 W.

11. Comparative Neurology. General anatomy and physiology of the nervous system; nervous functions, nerve elements, the neurone theory, and a general survey of the nervous system of invertebrates. Lectures and demonstrations. Prerequisite, course 8. Not given in 1906-07. Fall, 17 W.

12. Comparative Neurology Continued. The nervous system of vertebrates. Lectures and laboratory work. Prerequisite, course 11. Not given in 1906-07. Winter, 17 W.

13. Comparative Neurology Continued. The nervous system of vertebrates and man. The course aims to present the essentials of the morphology and evolution of the central and peripheral nervous system and sense organs with especial reference to function. Prerequisite, course 12. Not given in 1906-07.

Spring, 17 W.

14. The Human Brain. A short course open only to medical students. See the announcement of the College of Medicine.

16. Human Embryology. A special course open only to four-year medical students. See the announcement of the College of Medicine.

19. Current Literature. The advanced students form a journal club which meets weekly for reports and discussion of recent literature. One course credit for the year.

20. Research Work. Properly qualified students may undertake research work upon the morphology or physiology of vertebrates. Credit in proportion to the work done.

II. THE COLLEGE OF ENGINEERING AND MECHANIC ARTS.

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.

FREDERICK LINCOLN EMORY, M.M.E. M.E., Professor of Mechanics and Applied Mathematics.

CLEMENT ROSS JONES, M.M.E., Professor of Mechanical Engineering.

WILL H. BOUGHTON, C.E., Professor of Civil and Mining Engineering.

RUSSELL LOVE MORRIS, C.E., Professor of Civil and Mining Engineering.

EDWIN FAYETTE CHURCH, Jr., S.B., Assistant Professor of Mechanical Engineering.

WILLIAM ELMORE DICKINSON, M.E., E.E., Instructor in Electrical Engineering.

RUFUS A. WEST, Assistant in Metal Working and Stationary Engineer.

THOMAS HOWARD CATHER, Foreman of Machine Shop.

JOHN B. GRUMBEIN, Foreman of Wood Shop.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

JAMES SCOTT STEWART, M.S., Professor of Mathematics.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.

ANDRE BEZIAT DE BORDES, Ph.D., Professor of Romance Languages and Literatures.

FREDERICK LAWRENCE KORTRIGHT, D.Sc., Associate Professor of Chemistry.

WILLIAM JACKSON LEONARD, Assistant Professor of Fine Arts.

CHARLES COLLIER HOLDEN, A.B., Instructor in Romance Languages.

WILLIAM M. BAUMGARTNER, A.B., Instructor in German.

WILLIAM HENRY WHITHAM, A.M., Assistant in Physics.

ORGANIZATION.

This College comprises the following departments:

Civil and Mining Engineering;

Mechanical and Electrical Engineering and the Mechanic Arts;

Mechanics and Applied Mathematics.

The requirements for admission and graduation, the arrangement of the courses of instruction, and such other work as pertains to this College, are provided for by its faculty, in conjunction with the University Council.

BUILDINGS AND EQUIPMENT.

All instruction in engineering subjects is centralized in the Mechanical Hall. This building is located on the southeast corner of the campus and fronts the athletic field. It really consists of two buildings connected by covered passageways. The main building is 168½ feet long and three stories high with a well-lighted basement running under its entire length. In this building are the lecture, recitation, drawing, and instruction rooms of the various engineering departments, the machine and woodworking shops, and the mechanical and electrical laboratories. The rear building, known as the power plant, is one story in height and contains the boiler and engine rooms, the forge shop, the foundry, and the sheet metal work and the pipe fitting shop.

The drawing rooms, shops, power plant, and laboratories are equipped with modern apparatus and machinery, affording ample accommodation for practical and experimental work.

In the drawing-rooms are collections of models of bridges, furnaces, structures, mechanisms, engines, pumps, valves and valve gears; plaster cast and descriptive geometry models; sets of charts, state and government maps, surveys, photographs, engineering specifications, drawings, tracings and blue prints. In connection with

the drawing rooms there is a blue printing and photographic room and dark closet, equipped with electric and sun printing apparatus and photographic outfit.

The shops consist of a woodworking shop, forge shop, foundry, machine shop, and sheet metal work and pipe fitting shop. Each work shop occupies a separate room and is independently equipped with suitable benches, measuring instruments, tools, shop appliances, and machines, such as are ordinarily installed in the larger engineering colleges and commercial shops. These shops afford ample facilities for performing all the fundamental operations in machine construction and for building machines of moderate size.

The power plant equipment consists of different types of steam and gas engines, direct-connected or belted to electric generators, steam boilers, equipped for burning both gas and coal, pumps, condensers, air compressors, steam traps and other auxiliary apparatus, providing the means for furnishing any desired kind of power. The power for the shops and laboratories is ordinarily obtained from a 50 H. P. Westinghouse two-cylinder gas engine, direct-connected to a 37½ K. W. Westinghouse direct-current generator, from which it is distributed to motors or other apparatus, but this can be increased by operating independently, or in parallel, one or more additional machines driven by steam engines, or by a rotary converter connected to the city mains. Single and two-phase alternating current may be obtained from the city mains, and one, two and three-phase current may be developed by a double current dynamo driven as an inverse converter or as an alternating current dynamo.

The Engineering laboratories are fitted with standard gauges; measuring, calculating, and recording instruments; apparatus and appliances for qualitative and quantitative experimental work in civil, mechanical, steam, hydraulic, and electrical engineering.

The testing laboratory is equipped with apparatus and machines for testing cement, iron, steel, brick, stone and other materials of engineering. The principal machines and apparatus are an Olsen testing machine of 400,000 pounds capacity, taking tension and compression specimens up to six feet and beams up to sixteen feet in length; a 50,000-pound Riehle testing machine; a 10,000-pound Olsen transverse testing machine; a 60,000 inch-pound Riehle-Miller torsion machine; a Fairbanks cement tester; a standard abrasion cylinder; besides smaller apparatus for testing cement, lubricating oils, and extension and deflection of materials.

The mechanical and steam laboratories contain small steam and gas engines, a compound air compressor with electric and mechanical control, Westinghouse air brake apparatus, rotary air motors, a hot air engine, a small vertical steam boiler, a direct steam driven ventilating fan, dynamometers, friction brakes, condensers, injectors

and ejectors, steam and gas engine indicators, revolution counters, planimeters, anemometers and apparatus for testing pressure gauges, indicator springs, thermometers, flow of steam and air through nozzles, etc. This is supplemented by the power plant equipment previously described, which affords facilities for steam and gas engine trials and boiler tests with larger units, and also provides facilities for various lines of experimental investigation.

The electrical laboratory is provided with a number of small compound shunt and series wound direct-current generators and motors, ranging from 2½ to 10-kilowatt; two and three phase alternating current generators and motors of frequencies from 20 to 133 cycles, and capacities, ranging from 2 to 10-kilowatt; rotary converter and motor generator sets; an 8-horsepower variable speed Stow motor, driving a 5-kilowatt, 2-phase, 220-volt, 10 pole, alternator, which may give any frequency from 40 to 133 cycles; a 3-horsepower inter-pole motor; a 3-horsepower Thompson-Ryan variable-speed motor, which, driving a small alternator, affords frequencies from 15 to 60 cycles; a 5-horsepower Lammé series single-phase motor; a 3-horsepower self-starting, Century, single-phase, induction motor; a 10-horsepower Stanley 2-phase induction motor, equipped with compensator, condensers, and transformers; various types of Cutler-Hammer and other speed regulating and controller apparatus; a 30-ampere, Cooper-Hewitt mercury vapor rectifier; static, auto and constant-currnt transformers; a welding transformer; a high potential transformer for testing insulation, etc.; a Thodarson set of experimental apparatus for demonstrating any of the principles of electricity; a Queen and Co's. testing set, with standards of capacity, induction and resistance and with a potentiometer and standard cell, for standardizing electrical instruments; standard and commercial indicating and recording measuring instruments; synchronism and power-factor indicators; dynamometers; permeameters; galvanometers; tachometers and speed counters; rheostats of various types and capacities; and four distributing panels of switchboard. The photometric incandescent, arc and mercury vapor lamps and the storage battery equipments of the department of Physics are also available in connection with the above.

The hydraulic laboratory equipment consists of a compound duplex steam pump supplying water to a closed steel pressure tank. from which run headers arranged for the insertion of orifices, nozzles, and pipes supplying the various hydraulic motors; concrete storage tanks; measuring tanks and weighing scales; Cascade and Pelton water wheels; centrifugal pump, Venturi meter, water meters, steel weir-box, weir-gauges and other minor measuring and controling apparatus.

The passenger locomotive donated by the Baltimore & Ohio Rail-

road Company furnishes a nucleus for instruction in railway engineering.

Transits, levels, compasses, etc., are provided for the use of students in surveying.

The latest trade literature, catalogues, and reports of commercial developments in engineering are kept in classified files for students' reference. The University library has a thoroughly classified and indexed collection of the standard and latest books in engineering and the allied sciences, complete bound sets of the transactions of several scientific and engineering societies, and current issues and bound volumes of the principal scientific and technical periodicals.

The reference library of the department of Mechanical Engineering has recently been enriched by the gift of the technical library belonging to the late Assistant Professor Randolph. These works were presented by his father, Mr. P. F. Randolph, of Salem, W. Va.

METHODS OF INSTRUCTION.

In the classroom, instruction is given by lectures, combined with text-book study and recitation. Engineering problems and subjects are assigned to be worked out in the library or drawing-room, in the field, the shop, or the laboratory. Visits of inspection to industrial establishments and power plants are made whenever it is possible to arrange for them.

The method of instruction in manual training and the mechanic arts is largely that of the shop exercise system, by which the student is familiarized with the fundamental operations of constructive mechanics. Later, such instruction is combined with the work of constructing machine elements, tools, and apparatus.

In engineering drawing and designing, the work is carried along with the study of actual typical details of structural elements or with related practical and experimental work in the laboratories and mechanical shops. Frequent reference is made to models, to blue prints of engineering structures, and to existing work in the institution or elsewhere. An opportunity is also afforded for the necessary graphical treatment of engineering problems arising in lectures and the classroom instruction.

Lectures, field practice, mimeographed notes, collateral reading, conference work, and sketching, accompany all the practical lines of work.

In experimental engineering, the students are required to make scientific observations, keep records of tests, facilitate deductions therefrom by the use of calculating instruments, tabulate and plot results, and make reports upon the test in due form. Each member of the class is required to use and to become familiar with all the instruments and apparatus of any given course. The classes are

divided into groups of two or three students and furnished with mimeographed notes and forms.

REQUIREMENTS FOR ADMISSION TO ENGINEERING COURSES.

ADMISSION TO REGULAR COURSES.

The requirements for admission to the regular four year engineering courses are as follows:

English,	9 courses,
Modern Languages,	6 courses,
Algebra,	1 courses,
Plane and Solid Geometry,	3 courses,
Physics with laboratory,	2 courses,
Chemistry with laboratory,	3 courses,
History,	2 courses,
Free hand Drawing,	2 courses;
Total,	31 courses.

The following substitutions may be made:

1. Three courses in ancient language for three courses in modern language.

2. Any or all of the required college courses listed below may be offered for entrance instead of an equivalent number of preparatory courses in list 3. The preparatory courses for which substitution is made must be taken as college work in the freshman year. The college courses which may be offered are:

French or German,	3 courses,
Trigonometry,	1 course,
Geology, 3 and 5,	2 courses.
Mechanic Arts,	2 courses,
Mechanical Drawing,	2 courses,

3. Any or all of the required preparatory courses listed below may be taken in the freshman year as college work, provided an equivalent number of college courses from list 2 above has been offered for entrance.

Elementary Physics,	2 courses,
Chemistry,	3 courses,
Free hand Drawing,	2 courses,
Modern Language,	3 courses.

4. Solid geometry may be taken as a college course when trigonometry has been offered for entrance.

For a detailed statement of the above courses, see Entrance Requirements in the announcements of the College of Arts and Sciences.

ADMISSION TO SPECIAL COURSES.

Students under twenty-one years of age desiring to take special courses in the College of Engineering and the Mechanic Arts are required to present the same qualifications as candidates for one of the regular courses in this College. Students twenty-one years of age or over who are not candidates for an engineering degree, but who wish to pursue special studies along engineering lines, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies advantageously; but if they subsequently desire to become candidates for a degree, or to take a regular course in engineering, they must pass the required entrance examination for that year.

ADMISSION TO ADVANCED STANDING.

Students from other institutions will be admitted to advanced standing upon the same conditions under which students of this University are allowed to advance, namely:

A student to be registered as a Freshman must not be more than three courses behind his class; to be registered as a Sophomore, Junior, or Senior, he must have completed the required work of his course, including entrance examinations up to the beginning of the preceding year; and, if a Sophomore, must not be more than three courses, or, if a Junior, or Senior, not more than two courses behind his class.

No student can be admitted as a candidate for either of the baccalaureate degrees in engineering after the beginning of the fourth year.

THESES.

Every candidate for a baccalaureate or graduate degree in engineering will be required to prepare a thesis on some subject relating to a special branch of engineering or other department of applied science. The thesis must be either a design or a review of some machine, structure, or process, belonging to some department of scientific investigation. It must be fully elaborated and accompanied by the necessary working drawings or models required for the proper elucidation of the subject of the thesis.

With its accompanying drawings it will be presented first to the professor under whose guidance it has been prepared. It must be accepted by the head of that department in which the degree is to be conferred and approved by a special committee appointed for that

purpose. A typewritten copy of the thesis, prepared according to official specifications for theses, must be placed in the University library before graduation.

ENGINEERING SOCIETY.

The Engineering Society is organized in connection with the Engineering departments. It is conducted by the students of these departments, and meets once in two weeks. Its object is the investigation and discussion of scientific subjects. All engineering students are requested to join this organization and perform such work as its rules require. Students taking either of the four-year courses leading to the baccalaureate degrees in engineering are expected to engage actively, for three years, in the work of the society.

ENGINEERING COURSES OFFERED IN THIS COLLEGE.

The following regular courses are offered:

1. A four years undergraduate course leading to the degree of Bachelor of Science in Civil Engineering.
2. A four years undergraduate course leading to the degree of Bachelor of Science in Mechanical Engineering.
3. A four years undergraduate course in Electrical Engineering leading to the degree of Bachelor of Science in Mechanical Engineering.
4. A graduate course leading to the degree of Civil Engineer.
5. A graduate course leading to the degree of Mechanical Engineer.

The following special courses are offered:

1. Groups of elective courses for students in other colleges taking work in engineering subjects.
2. Special courses in civil, mechanical, and electrical engineering, for students who do not desire an engineering degree.
3. Special courses in manual training for teachers.
4. Special courses in the mechanic arts for artisans, mechanics, apprentices, stationary engineers, electricians, etc.

GENERAL DESCRIPTION OF ENGINEERING COURSES.

Undergraduate Courses in Engineering.

These are four year courses and lead respectively to the degrees of Bachelor of Science in Civil Engineering and Bachelor of Science in Mechanical Engineering. The detailed requirements for these degrees are given on the following pages. The work for a degree is nearly all prescribed but candidates for either degree have oppor-

tunity for a limited amount of specialization before graduation. For full particulars see statements of requirements for each degree. Candidates for other than the engineering degrees, and special students in any department of the University, are permitted to elect subjects in the College of Engineering, provided, in each case, they have had the subjects specified as prerequisites. Students who wish to take a general classical or scientific course before taking an engineering course are advised to carry their mathematics as far as called for by the engineering course, and to take some of their elective work in the College of Engineering. The engineering professors will advise them what is best for them to elect.

The purpose of the undergraduate engineering courses is to give the student a broad foundation for his professional career. Only a limited amount of specialization is considered wise. Study of English and other modern languages, the leading sciences, and especially mathematics and mechanics, prepares the student for the technical subjects of the course. In the latter subjects, instruction in the theoretical principles involved is supplemented by field practice or work in the laboratory, shop, and drafting-room, appropriate to the several subjects. As a result, the young engineer is able to be of value to his employer at once and to advance rapidly in usefulness. The subjects studied, the consecutive nature of so much of the course, and the development of concentration and accuracy necessary to its successful completion, result in giving the student a fairly liberal education as well as preparation for his professional career.

Graduate Courses in Engineering.

These lead to the professional degrees of Civil Engineer and Mechanical Engineer, respectively. They consist of eight advanced engineering courses and a thesis, and require one year (three quarters) of resident study and work at the University.

A candidate for a professional degree is required to have completed the prescribed four years course of undergraduate study in that department of this college in which he proposes to take a degree, or to have completed such a course or its equivalent at some other institution of recognized standing conferring the same or an equivalent baccalaureate degree. In the latter case, the diploma and other certificates of proficiency should be presented.

Special Engineering Courses.

Deserving young men who have not the time or are otherwise unable to take a full course, will be allowed to take special or partial courses, consisting of such studies as they are prepared to take up, provided that such partial courses shall have been approved by their class officers.

These consist of groups of electives for students in other colleges of the University, and for special students taking work in engineering subjects. The latter are especially designed for surveyors, manual training teachers, and for others who are equipping themselves for some particular field of engineering, commercial, or industrial work.

These lines of work afford opportunity for specializing in the undergraduate departments of the College of Engineering. Students who do not propose to take a full course leading to a degree in engineering may, nevertheless, be quite fully prepared to take up certain lines of profitable study and work during their residence at the University.

UNDERGRADUATE COURSE IN CIVIL AND MINING ENGINEERING.

This is a four year course leading to the degree of Bachelor of Science in Civil Engineering. It has been planned with a view to laying a broad and substantial foundation for the general and technical knowledge needed by practitioners in civil engineering—so that graduates, guided by their theoretical education, and the practical training they may get during the course, may find profitable employment in the line of their profession and develop into useful investigators and scientific constructors.

The scope of the course may be ascertained by examining the statement of requirements for graduation, which follows:

Requirements for the degree of Bachelor of Sciences in Civil Engineering:

Department	Subject	Number	Credit Courses
Mathematics:—	Trigonometry	9	1
	Higher Algebra	8	1
	Analytic Geometry	11	1
	Differential Calculus	15	1
	Integral Calculus	16	1
German or French		4, 5, 6	3
Analytical Chemistry		4, 5, 7	1
Geology:—	General Geology	3	1
	Economic Geology	5	1
	Mineralogy	7	1
Physics—	General Physics	6, 7, 8	3
	Dynamos and Motors	17	1
Mechanics and Applied Mathematics:—	Statics	2	1
	Kinetics	3	1
	Strength of Materials	4	1
	Power	5, 6	2

Mechanical Engineering:—Woodworking	1	1
Testing Laboratory	70, 71, 72	1
Civil Engineering:—Drawing	1, 9, 10 11	4
Descriptive Geometry	2, 3	2
Land Surveying	4	1
Railroad Surveying	5	1
Topographical and Mine Surveying	6	1
Railroad Construction	7	1
Roads, Streets and Pavements	8	1
Hydraulics	12	1
Stereotomy	13	1
Stresses in Roofs and Bridges	14, 15	2
Bridge Design	16	1
Municipal and San. Eng.	17	1
Economic Railroad Loc.	18	1
Masonry Construction	19	1
Gen. Engineering Construction	20	1
Thesis	21	1
Total		44

Students who wish to specialize along the lines of chemistry, physics, mining engineering, hydraulics, structural design or electrical engineering, will be allowed to do so, under the following conditions: No substitution or election will be allowed before the beginning of the third year. Any student dsiring so to specialize must prepare a list of the studies he wishes to substitute or elect, and a scheme of the work proposed, which must be approved by the head of the department and the Committee on Classification and Grades, and filed with the registrar.

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B. S. C. E.

Each subject is followed by its department number, and if a fractional course, by its credit value.

First Year.

Hour.	Fall.	Spring.	Winter.
8:35	German 4 (See Note 1)	German 5	German 6
9:35	Proj. Drawing 1	Drawing 9	Land Surveying 4
10:35	Univ. Algebra 8	Trigonometry 9	Anal. Geomtry 11
11:35	Geology 3		Geology 5
1:30	Woodworking 1, 1-3	Woodworking 1, 1-3 M., W. & F.	Woodworking 1, 1-3 M., W. & F.

Second Year.

8:35 Diff. Calculus 15	Integral Cal. 16	Mechanics 2
9:35 Physics 6	Physics 7	Physics 8
10:35 Physics 6, 2-5 Tu. & Th.	Physics 7, 2-5 Tu. & Th.	Physics 8, 2-5 Tu. & Th.
		Top. & Mine Surv. 6 M., W. & F.
11:35 Descrip. Geom. 2	Descrip. Geom. 3	
1:30 Anal. Chem. 4, 1-3 Tu. & Th.	Anal. Chem. 5, 1-3 Tu. & Th.	Anal. Chem. 7, 1-3 Tu. & Th.
		Surveying 6, W. & F.
2:00 Draw. 10, 1-2	Draw. 10 1-2	

Third Year.

8:35 R. R. Surveying 5	R.R. Construction 7	Mineralogy 7
9:35 Mechanics 3	Mechanics 4.	
10:35 Stereotomy 13	Physics 17	Rds. & Pavem'ts 8
11:35		Masonry Const. 19
2:00 Draw. 11, 1-2 M., W. & F.	Draw. 11, 1-2 M., W. & F.	
Sat. Mech. Lab. 70, 1-3	Testing Mat. 72, 1-3	Power Meas. 71, 1-3

Fourth Year.

8:35 Power 5	Power 6	Hydraulics 12 (See Note 2)
9:35		Eng. Const. 20
10:35 Roofs & Bridges 14	Roofs & Bridges 15	
11:35 Mun. & San. Eng. 17	Bridge Design 16	Econ. R. R. Loca. 18
2:00	Bridge Design 16	

Thesis throughout the year.

NOTE 1.—Students are expected to take three courses of French or of German as college work. The three taken may be any for which they are prepared. As the entrance requirements may be met in different ways also, it is not possible to make provision in the schedule for the foreign language work of every student. Those who enter with credit for three courses of German may take second year German as scheduled above. Others may take their language work as they can arrange it.

NOTE 2.—Students who expect to take their thesis subject in hydraulics should take Hydraulics 12 in the third year instead of the fourth, as scheduled.

GRADUATE COURSE IN CIVIL ENGINEERING.

This course leads to the degree of Civil Engineer. There is no

fixed curriculum of subjects to be taken for this degree but the course is arranged to suit the needs of each candidate. For a statement of requirements for admission to this course and requirements for graduation see "Graduate Courses in Engineering" under "General Description of Engineering Courses." For the particular requirements see statement of the requirements for the degree of Master of Arts in the announcement of the College of Arts and Sciences.

UNDERGRADUATE COURSES IN MECHANICAL AND ELECTRICAL ENGINEERING.

These are four year courses in mechanical and electrical engineering and lead to the degree of Bachelor of Science in Mechanical Engineering. These courses seek to develop the principles and to prepare for intelligent work involving the design, selection, cost, construction, installation, testing and management of power generators, prime movers, and machinery for manufacturing, transportation and power transmission; the planning, equipment, cost, construction and management of manufacturing plants, shops, factories, lighting, heating and ventilating.

Students pursuing this course may elect either the mechanical or the electrical alternative of the fourth year, receiving in either case the degree of Bachelor of Science in Mechanical Engineering. This provision has been made to meet the requirements of those who may wish to specialize in either the steam, the manufacturing, or the electrical branches of this profession.

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING.

The degree of Bachelor of Science in Mechanical Engineering will be conferred upon any student who satisfies all entrance requirements and satisfactorily completes the following forty required college courses, and four courses selected from one of the elective groups given below:

Required Courses.

Subject.	Course numbers.	Courses credit.
Language:—		
French or German	4, 5, 6	3
Mathematics:—		
Trigonometry	9	1
Advanced Algebra	8	1
Analytic Geometry	11	1
Differential Calculus	16	1
Integral Calculus	17	1

Chemistry:—			
Analytic Chemistry	4, 5, 6		1
Geology:—			
General Geology	3		1
Physics:—			
General Physics	6, 7, 8,		3
Dynamos and Motors	17,18		1 3-5
Development and Utility of Power	5, 6		2
Mechanics and Applied Mathematics:—			
Analytic Mechanics	2, 3		2
Strength of Materials	4		1
Civil Engineering:			
Descriptive Geometry	3		1
Land Surveying	4		1
Mechanical Engineering:—(Mechanic Arts.)			
Woodworking	1, 3	1 1-5	
Foundry	7	3-5	
Forging	5	2-5	
Tin Smithing and Pipe Fitting	9	2-5	
Machine Shop	10.11,12,13	1 3-5	
**Machine Construction	14.15	4-5	
*or Elec. Construction	17,18		
			5
Mechanical Engineering:—(Mechanical Drawing and Machine Design.)			
Mechanical Drawing	20, 21, 22	1 1-5	
Mechanism and Machinery	24.26	1 1-5	
Mechanism (Drawing)	25, 27	4-5	
Valves and Valve Gears	28	3-5	
Valve Gears (Drawing)	29	2-5	
Machine Drawing	30,32	4-5	
Machine Design	31	3-5	
**Drawing and Design.	35,36,37	1 4-5	
*Design'g and Draw.	56,57,58		
			7 2-5
echanical Engineering: (Steam Engineering.)			
Thermodynamics	40	1	
Heat Engines and Motors	41	3-5	
Power Plant Design	43	3-5	
			2 1-5

*Required of students taking electrical courses.

**Required of students taking regular and mechanical alternative courses.

Mechanical Engineering: (Electrical Engineering)			
Electrical Distribution }	52		
**or Elec. Engineering }	65		3-5
Mechanical Engineering: (Experimental Engineering.)			
Mechanical Laboratory	70	1-3	
Power Measurement	71	1-3	
Testing Materials	72	1-3	
Mechanical Eng. Laboratory	73,74,75	1 1-5	2 1-5
Mechanical Engineering:—			
Thesis			1
Total			40

Groups of Elective Courses.

Regular Course.

Mechanical Engineering: (Machine Design.)		
Steam Engine Design	34	3-5
Mechanical Engineering: (Steam Engineering, &c.)		
Steam Boilers	42	3-5
Civil Engineering:—		
Hydraulics	12	4-5
Mechanical Engineering: (Electrical Engineering.)		
Power Transmission	59	3-5
Electric Lighting	53	3-5
Electrical Laboratory	60,61	4-5
Total		4

Electrical Group.

Mechanical Engineering: (Electrical Engineering.)		
*Electrical Machinery	51,52	1 1-5
Electric Lighting	53	3-5
Electric Railroads	54	2-5
*Power Transmission	59	2-5
*Electrical Engineering Laboratory	60,61,62	1 1-5
Telephone Engineering	66	3-5
Physics: (Electricity.)		
Any approved electrical course		1 or more

*Required of all students taking electrical course.

**Will not be accepted for combination regular and electrical courses.

Mechanical Group.

Mechanical Engineering:		
*Steam Engine Design	34	3-5
*Steam Boilers	22	3-5
Materials of Engineering	45	1
Heating and Ventilating	46	1
*Machine Design	33	1
Machinery and Mill Work	45	1
Civil Engineering:—		
Hydraulics	12	1
Any other approved course		1 or more
Mechanics and Applied Mathematics:—		
Any approved course		1 or more

DISTRIBUTION OF THE WORK FOR THE DEGREE OF B. S. M. E.

First Year.

Hour	Fall.	Winter.	Spring
8:30	German 4	German 5	German 6
9:30			Land Surveying 4
10:30	Algebra 8	Trigonometry 9	Anal. Geom. 11
11:30	Geology 3	Geology 4	
1:00	Mech. Draw. 20 2-5 W. & F.	Mech. Drawing 21 2-5 W.& F.	Mech. Drawing 22 2-5 W. & F.
1:00	Woodwk'g 1, 3-5 T. and Th. and 8:00 S	Pattern-making 3, 3-5 Tu. Th. and S	Foundry, 7, 3-5 Tu. Th. and S.

Second Year.

8:30	Differen'l Calc'us 16	Integral Calculus 17	Mechanics 2
9:30	Physics 6	Physics 7	Physics 8
10:30		Mechanism 24, 3-5 M., W. and F.	Mechanism 26, 3-5 M., W. and F.
11:30	Descrip've Geom. 3		
1:30	Anal. Chem. 4, 1-3 1-3 Tu. and Th.	Anal. Chemistry 5, 1-3 Tu. and Th.	Anal. Chem. 6, 1-3 Tu. and Th.
1:30	Mec. Draw. 23, 1-3 F. (Elective)	Mechanism 25 W. and F. 2-5	Mechanism 27 W. and F. 2-5
1:30	Forging 5, 2-5 M. and 8:00, S.	Tin & Pipe W'k 9, 2-5 M. and S.	Machine Work 10 2-5 M. and S.

Third Year.

8:30	Power 5	Power 6	Thermodynamics 40
9:30	Mechanics 3	Mechanics 4	Mach. Design 31, 3-5 M., W. andF.

*Required of all students taking the mechanical alternative.

10:30	Val's & Valve Gr's 28, 3-5 M., W. and F	Dyn. & Motors 17 3-5 M., W. and F.	Dyn. & Motors 18
11:30			
1:30	Mach. Work 11 2-5 M. and F.	Machine Work 12 2-5 M. and F.	Machine Work 13 2-5 M. and F.
1:30	Valve Gears 29 2-5 Tu. and Th.	Machine Draw'g 30 2-5 Tu. and Th.	Machine Draw'g 32 2-5 Tu. and Th.
8:00	Mech. Lab. 70 1-3 S.	Test'g Mater. 72 1-3 S.	Power Measure, 7 1-3 S.

Fourth Year. (Regular Course.)

8:30	Heat Engines, 3-5 M., W. and F.	Power Plant Design 43, 3-5 M., W. and F.	Hydraulics 12. 4-5
	Engineering Lab. 73, 2-5 Tu. or Th.	Eng'g Lab. 74, 2-5 Tu. or Th.	Eng'g Lab. 75. 2-5 Tu. or Th.
	Elect. Lab. 60, 2-5 Tu. or Th.	Elect. Lab. 61, 2-5 Tu. or Th.	
9:30	Steam Eng. Des. 34, 3-5 M., W. and F.	Steam Boilers 42, 3-5 M. W. and F.	Elect. Lighting 53 3-5 M. W. and F.
10:30	Elect. Dist. 52, 3-5 M. W. and F.	Power Trans. 59, 3-5 M. W. and F.	Thesis Conference. M., W. and F.
1:00	Draw. and Des. 35, 3-5 Tu. Th. and F.	Draw. and Des. 36, 3-5 Tu. Th. and F.	Draw. and Des. 37, 3-5 Tu., Th. and F.
	Mach. Const., 14 2-5 M. and W.	Mach. Cons. 15. 2-5 M. and W.	

Fourth Year. (Electrical Course.)

8:30	Heat Engs. 41, 5-5 M. W. and F.	Power Plant Design 43, 3-5 M., W. and F.	Thesis Conference, M., W. and F,
	Eng'g Lab. 73, 2-5 Tu. or Th.	Eng'g Lab. 74, 2-5 Tu. or Th.	Eng'g Lab. 75, 2-5 Tu. or Th.
	Elect. Lab. 60, 2-5 Tu. or Th.	Elect. Lab. 61, 2-5 Tu. or Th.	Elect. Lab. 62, 2-5 Tu, or Th.
9:30	Elect. Mach'y 51, 3-5 M., W. and F.	Elect. Mach'y 55, 3-5 M.. W. and F.	Elect. Lighting 53, 3-5 M. W. and F.
10:30	Elect. Dist. 52 3-5 M., W. and F.	Power Trans. 59, 3-5 M., W. and F.	Elect. R. R. 54, 2-5 W. and F.

1:00	Des. and Draw. 56 3-5 Tu., Th. and F.	Des. and Draw. 57, 3-5 Tu., Th. and F.	Des. and Draw. 58, Tu., Th. and F.
	Elect. Const. 17 2-5 M. and W.	Elect. Const. 18, 2-5 M. and W.	

Fourth Year.—(Mechanical Alternative.)

Candidates for the degree of B. S. M. E. may select their elective studies from the mechanical group of electives, but such elective courses must be taken at the time for which they are announced in the catalogue. The required courses must be taken as scheduled above.

GRADUATE COURSE IN MECHANICAL ENGINEERING.

This course leads to the degree of Mechanical Engineer. There is no fixed curriculum of subjcts to be taken for this degree but the course is arranged to suit the needs of each candidate. For a statement of requirements for admission to this course and requirements for graduation see "Graduate Courses in Engineering" under "General Description of Engineering Courses." For the particular requirements see statement of the requirements for the degree of Master of Arts in the announcement of the College of Arts and Sciences.

MANUAL TRAINING COURSES.

The first group consists of Courses 1, 2, 3, and 5, consisting of shop practice in wood and metal working. The second group consists of mechanical drawing, Courses 20, 21, 22, and shop practice in wood and metal working, Courses 1, 2, 3, 5, 7, 8, 9, and 10. These courses aim to present the simple elements of some of the constructive arts which admit of being developed into a logical series of exercises. Their merit is chiefly educational, rather than as possessing any intrinsic value in relation to the several branches of handicraft work from which they are taken. The primary object is the training of the eye to see the form of objects, and of the hand to produce such forms in the materials most commonly used in constructive work. At the same time the student is acquainted with the use of the fundamental tools and with the accuracy called for in the production of elements of construction and of simple combinations of the same in fitting parts of the work together. There is sufficient instruction in handicraft work and practice to form a proper foundation for the more advanced work with machine tools in mechanical construction, and these courses are, therefore, required of all students taking the full course in mechanical engineering.

Students who wish to become more proficient in the use of tools or who are preparing themselves for positions as foremen in industrial establishments, may take additional work in the shop in which they wish to specialize. Instruction will be given in the maintenance and repair of machinery, and opportunity will be afforded for the construction of new machines and apparatus for the University, as well as the working up in the shops of original designs which have been approved by the head of the department. All students in mechanical engineering are recommended to take advantage of this provision and devote as much time as possible to shop and drawing-room practice.

DEPARTMENTS OF INSTRUCTION.

Each of the courses of instruction offered by the Engineering department is known as a full course unless otherwise stated; that is, a course of five class exercises a week for one quarter, or their equivalent in laboratory or other practical work.

The following branches of applied science and engineering are represented in the courses offered by the Engineering departments:

Civil Engineering	Mechanical Engineering
Designing	Metallurgy
Drawing	Mining Engineering
Electrical Engineering	Municipal Engineering
Experimental Engineering	Railroad Engineering
Hydraulic Engineering	Sanitary Engineering
Mechanics	Steam Engineering
Mechanic Arts	Structural Engineering
Applied Mathematics	Surveying

CIVIL AND MINING ENGINEERING.

Professor W. H. Boughton and Professor Russell L. Morris.

1. Projection Drawing. Orthographic projections in one quadrant; elementary problems in shades and shadows; isometric and oblique projections. Lectures and recitations; drawing-room work.
Fall, 9:30; Professor Morris, 30 M. H.

2. Descriptive Geometry. Orthographic projections in the four quadrants; problems of the point, line and plane; tangencies and the development of single-curved surfaces.
Fall, 11:30; Professor Morris, 24 M. H.

3. Descriptive Geometry. Single-curved, double-curved and warped surfaces; intersections, tangencies and developments; shades, shadows and perspective. Lectures and recitations.
Winter, 11:30; Professor Morris, 24 M. H.

4. Land Surveying. Theory and practice of land surveying;

magnetic variations; calculating the content; retracing old lines; division of lands; establishment of meridians; care and use of instruments; mapping the survey. Lectures, recitations, and field practice. Gillespie's Surveying.

Spring, 9:30; Professor Morris, 24 M. H.

5. Railroad Surveying. Theory and practice of railroad surveying. Lctures, recitations, and field work. Searles' Field Engineering. Fall, 8:30; Professor Morris, 24 M. H.

6. Topographical and Mine Surveying. Theory and practice of topographic, hydrographic, and barometric surveying; theory and practice of underground surveying. Lectures, recitations, and field practice. Prerequisite, Course 4. Johnson's Theory and Practice of Surveying. Spring, 10:30; Professor Boughton, 14 M. H.

7. Railroad Construction and Maintenance. Tunnels, trestles, track work, earth work, signalling, graduation, masonry, etc. Tratman's Track and Trackwork.

Winter, 8:30; Professor Morris, 24 M. H.

8. Roads and Pavements. Location, construction, and maintenance; study and comparison of the various types of roads; road-making material. Lectures.

Spring, 10:30; Professor Morris, 24 M. H.

9. Drawing. Continuation of Course 1; projections, developments, and intersections; lettering. Thorne's Junior and Intermediate Courses in Drawing. Winter, 9:35; Professor Morris, 30 M. H.

10. Drawing. Conventional methods in detail drawing and map drawing; special attention to execution and to practical lettering of working drawings. One half course given in the fall and one half in the winter. 2:00; Professor Boughton, 30 M. H.

11. Drawing. Continuation of course 10; examples taken from actual engineering constructions; elementary problems in design of structures. One half course given in the fall and one half in the winter, 2:00. Professor Boughton, 30 M. H.

12. Hydraulics. Theoretic pressure and energy of water; flow of water through orifices and tubes and over weirs; flow in conduits, pipes, canals, and rivers; current meters, water motors, etc. Lectures and recitations. Arranged either as a full course or a four-fifths course. Spring, 8:30; Professor Boughton, 14 M. H.

13. Stereotomy. Stone-cutting, plain and decorative. Recitation and drawing-room work. Warren's Stone Cutting.

Fall, 10:30; Professor Morris, 32 M. H.

14. Stresses in Roofs and Bridges. Determination of stresses by graphical and analytical methods. Lectures and recitations. Prerequisite, Strength of Materials.

Fall, 10:30; Professor Boughton, 14 M. H.

15. Stresses in Bridges and Arches. Continuation of Course 14. Lectures and recitations.

Winter, 10:30; Professor Boughton, 14 M. H.

16. Bridge Design. Detailed designs of bridges and other structures of wood and steel. Must be preceded or accompanied by course 15.

Winter, 11:30 and 2:00; Professor Boughton, 30 M.H.

17. Municipal and Sanitary Engineering. Water supply for municipalities, sewerage systems, sewage disposal, etc. Lectures and recitations. Fall, 11:30; Professor Boughton, 14 M. H.

18. Economic Railroad Location. General theory of railroad location; effects of grades, curvature, and distance on operating expense and revenue; railroad finance and management.

Spring, 11:30; Professor Morris, 24 M. H.

19. Masonry Construction. As presented in Baker's Masonry Construction. Spring, 11:35; Professor Boughton, 14 M. H.

20. General Engineering Construction. Supplementary to other courses of this department. Masonry arches; solid and framed domes; built up timber beams; trussed timber and steel beams; composite beams; reinforced concrete for beams, columns, retaining walls, arches, dams, etc.; analytical and graphical solution of roof angles and other skew connection work; improvement or rivers and harbors; relative economy of structures of different cost and life. Prerequisites Courses 7, 16, 19.

Spring, 9:30; Professor Boughton, 14 M. H.

21. Thesis. See General Description of Engineering Courses for thesis requirements.

22. Geodesy. Precise and geodetic surveying; reduction of observations by the method of least squares; field exercises in determining azimuth, latitude, and time. Elective course, not given regularly. Hours to be arranged; Professor Boughton, 14 M. H.

Advanced courses in Hydraulics and Bridge Design have been given by the head of the department and will be arranged again whenever necessary. Students who desire to specialize in this way must comply with the conditions laid down on a preceding page under the head "Undergraduate Course in Civil and Mining Engineering.

Note. In the several surveying courses, whether so stated in the announcement or not, there may be field practice on Friday afternoons, or at other times different from the recitation hour, as the instructor may arrange. The student should keep this in mind when selecting courses for any quarter.

MECHANICAL AND ELECTRICAL ENGINEERING AND THE MECHANIC ARTS.

Professor Jones, Assistant Professor Church, Mr. Dickinson, Mr. West, Mr. Cather and Mr. Grumbein.

Courses in the Mechanic Arts.

1. Woodworking. Includes instruction in carpentry, joinery, and other bench work; exercises with the fundamental edge tools in soft and hard woods, and in matching, molding, joining, and making typical framed work; woodturning, comprising the fundamental geometric forms in soft and hard woods; fitting forms of reversed curves; face plate work, chucking, boring, finishing, and polishing. Three-fifths course, or 9 actual hours per week.

1st section; Fall, Winter or Spring, Monday, Wednesday, and Friday, 1:00.

2nd section; Fall or Winter, Tuesday and Thursday, 1:00 and Saturday, 8:00. Mr. Grumbein, 21 M. H.

2. Woodworking.—Advanced work for special students. In this course the student is permitted to specialize along the lines of his choice. The amount of credit to be given depends upon the amount of time spent in the shop and the progress made by the student. Hours to be arranged; Mr. Grumbein, 21 M. H.

3. Pattern-Making. Applies the foregoing instruction in its relation to patterns for machine construction, considers the types of patterns and usual allowances for draft, shrinkage and finish, with exercises in making patterns of machine elements and other work to be executed in the machine shop. Three-fifths course, or 9 hours per week.

Fall, Winter, or Spring, Tuesday and Thursday, 1:00 and Saturday, 8:00; Mr. Grumbein, 21 M. H.

4. Pattern-Making. A continuation of Course 3 for special students. Credit for this course is given on the basis of the time spent in the shop and the progress of the student.

Hours to be arranged; Mr. Grumbein, 21 M. H.

5. Forging. Exercises in drawing out and sizing, forming, welding, and fitting iron; steel forging, tempering, annealing; making typical tools to be used later in the machine shop; manner of

working forges; determining quality of iron and steel and strength of the students' welded joints. Two-fifths course, or 6 hours per week.

Sophomores; Fall, Monday 1:00 and Saturday 8:00; other sections, hours to be arranged; Mr. West, 7 M. H.

6. Forging. A continuation of Course 5 for special students. Credit is given on the basis of time spent in the shop and the progress of the student. Hours to be arranged; Mr. West, 7 M. H.

7. Foundry. Molding and casting in connection with pattern-making; selection, preparation, and use of molding, facing, and parting sands; use of typical molder's tools and appliances; making castings from exercise patterns and from those for machine work. Three-fifths course.

Spring , Tuesday and Thursday 1:00 and Saturday 8:00; Mr. West and Mr. Grumbein, 8 M. H.

8. Foundry Practice. A continuation of course 7 for special students. Hours to be arranged; Mr. West, 8 M. H.

9. Tin-Smithing and Pipe-Fitting. Brazing, tinning, forging and use of coppers; seamless and solder-jointed work in tin and sheet iron; laying-out, cutting, and forming sheet-metal for electrical fitting; bending and coiling pipe; making joints and use of packing; drilling and tapping for pipe and bolt holes in boiler plate; soft and hard patches; tank and boiler riveting, caulking, and tube expanding. Two-fifths course, or 6 hours per week.

Winter, Monday, 1:00, and Saturday, 8:00; Mr. West, 7 M. H.

10. Machine Work. Tool smithing, iron work at the bench, chipping, filing, fitting, scraping, polishing; key-seating; formation of straight edges and surface-plate; handwork with machine tools, drilling, tapping. Two-fifths course, or 6 hours per week.

Spring, Monday, 1:00, and Saturday, 8:00; Mr. Cather, 11 M. H.

11, 12, 13. Machine Tool Work. A continuation of course 10. Mechanical engineering; machine tool work with drill-press, lathe, shaper, planer, emery grinder, and milling machine; production of typical details of machine tools and other workshop appliances. Each, two-fifths course, or six hours per week.

Fall, Winter, Spring, Tuesday and Thursday, 1:00; Mr. Cather, 11 M. H.

14, 15, 16. Machine Construction. Reproduction of typical details steam-engine and other motive-power machinery; work from original designs; manufacture of special apparatus for shop and laboratory use; practice in building, assembling, and erecting workshop and engineering appliances, motive-power machinery and acces-

sories, and attendance on the same. Each, two-fifths course, or six hours per week.

Fall, Winter, Spring, Tuesday, Thursday, 1:00; Mr. Cather, 11 M. H.

17, 18. Electrical Construction. Mechanical repairs to dynamos and motors and setting and adjusting brushes; constructing switches, switch boards, and rheostats; winding coils, wiring for electric light, power and telephone service. Each two-fifths course.

Fall and Winter, Monday and Wednesday, 1:00; Mr. Dickinson and Mr West, 4 M. H.

Courses in Mechanical Drawing and Machine Design.

20, 21, 22. Mechanical Drawing. Plain lettering, care and use of drawing instruments, selected geometric constructions, line exercises, finished drawings; isometric, cabinet and orthographic projection, working drawings from models and blue prints, tracing, and blue printing; mimeographed notes, blue prints. Each, two-fifths course, or six hours per week.

Fall, Winter, and Spring, Monday, Wednesday, and Friday, 1:00; Professor Church, 25 M. H.

23. Machine Drawing. Working drawings of machine parts from sketches and models. Elective for Sophomores. Prerequisite, Course 21. One-third course.

Fall, Friday, 1:00; Prof. Church, 25 M. H.

24 and 26. Mechanism and Machinery. Analysis and classification of mechanisms, diagrams of relative velocities of machine parts; principles of transmission and change of motion by linkages, rolling contact, tooth gearing, couplings, belting, cams, parallel and straight line motions; classification and analysis of machinery with special attention to workshop appliances, machine tools, and machinery of transmission. Lectures and recitations. Prerequisite course 20 , and accompanying drawing courses, 25 and 27. Each, three-fifths course.

Winter and Spring, Monday, Wednesday, Friday, 10:30; Professor Church, 26 M. H.

25, 27. Mechanism Drawing. Practice accompanying courses 24 and 26. Drawings and diagrams of mechanical movements; graphical solution of problems; design of gear teeth. Each, two-fifths course, or six hours per week.

Wednesday and Friday, 1:00; Professor Church, 25 M. H.

28. Valves, Valve Gears and Governors. Comparison of valve diagrams; analysis and design of valves, valve gears, and governors. Prerequisite, courses 27, mechanical engineering and Mechanics 2.

Lectures, recitations, and accompanying drawing course, 29. Three-fifths course.

Fall, Monday, Wednesday and Friday, 10:30; Professor Church, 26 M. H.

29. Valves and Valve Gears. Drawing-room practice accompanying course 28.

Fall, Tuesday and Thursday, 1:00; Professor Church, 25 M. H.

30. Machine Drawing. Conventional methods, detail and assembled drawings, tracing and blue printing. Prerequisite, Course 22. Two-fifths course.

Winter, Tuesday and Thursday, 1:00; Professor Church, 25 M. H.

31. Machine Design. Elements in machine design, conventional and rational; adaptation of commercial sizes; proportioning fastenings, flanges, bearings, rotating pieces, connecting links, and machine supports; mechanics of machinery; influence of material and treatment on design. Lectures and recitations. Prerequisite, Mechanics 4 and course 27, mechanical engineering, and accompanying drawing course 32. Three-fifths course.

Spring, Monday, Wednesday, Friday, 9:30; Professor Church, 26 M. H.

32. Machine Drawing. Drawing room practice accompanying course 31. Two-fifths course.

Spring, Tuesday and Thursday, 1:00; Professor Church, 26 M. H.

33. Machine Design. Continuation of Course 31. Lectures, recitations and drawing. Notes, blue prints and reference works.

Fall, 11:30; Professor Church, 26 M. H.

34. Steam Engine Design. Comparison of rational and empirical formulae; complete design of simple engine. Supplemented by Course 35. Lectures and recitations. Printed notes, blue prints, and drawings of best types of modern engines. Three-fifths course.

Fall, Monday, Wednesday, Friday, 9:30; Professor Church, 26 M. H.

35. Drawing and Designing. Drawing room practice accompanying Course 34; as far as possible complete drawings of an engine are made from calculations and designs developed in Course 34. Three-fifths course.

Fall, Tuesday, Thursday, Friday, 1:00; Professor Church, 25 M. H.

36. Drawing and Designing. Continuation of Course 35 and drawing room and office work accompanying Course 43, Mechanical Engineering. References made chiefly to blue prints and mechani-

cal drawings of actual power and manufacturing plants. Two-fifths course.

Winter, Tuesday, Thursday, Friday, 1:00; Professor Church, 25 M. H.

37. Drawing and Designing. Continuation of Course 36 and specialized engineering drawing. Prerequisite, Course 36. Three-fifths course.

Spring, Tuesday, Thursday, Friday, 1:00; Professor Church, 25 M. H.

NOTE.—Students taking the electrical course take "Designing and Drawing" Courses 56, 57 and 58 instead of 35, 36 and 37.

Steam Engineering, Manufacturing, Etc.

40. Thermodynamics of Engineering. Mechanical theory of heat, thermodynamics of gases and vapors, with special application to steam and other heat engines, air, and refrigeration. Prerequisites, Courses 5 and 6, Mechanics. Lectures and recitations. Peabody's "Thermodynamics of the Steam Engine."

Spring, 8:30; Professor Jones, 16 M. H.

41. Heat Engines and Motors. Expansive working of steam and gas, principles of design, construction and operation of steam engines, air compressors, gas engines, and refrigerating machines. Prerequisite Course 40. Lectures and recitations supplemented by Course 73. Three-fifths course.

Fall, Monday, Wednesday and Friday, 8:30; Professor Jones, 16 M. H.

42. Steam Boilers. Heating value of fuels, combustion, economical production of steam; application of theory and practice in the design of steam boilers, chimneys, and accessories; steam piping and distribution. Prerequisite, Course 31. Three-fifths course.

Winter, Monday, Wednesday, Friday, 9:30; Professor Church, 26 M. H.

43. Power plant Design. Embodies the details of the earlier courses of instruction in Prime Movers and motive-power machinery in respect to the design of steam and electric power and hydraulic plants for power transmission and manufacturing purposes; location of the plant; selection, arrangement, subdivision into units and installation; economics, organization and management of power and manufacturing plants; engineering specifications. Lectures and accompanying Course 36. Three-fifths course.

Winter, 8:30; Professor Jones, 16 M. H.

44. Power Plant Design. A continuation of Course 43 for graduates and advanced students. Lectures, assigned reading and designing. Hours to be arranged. Professor Jones, 16 M. H.

45. Machinery and Mill Work. Construction of shops and manufacturing plants, arrangement of machines, hoisting and conveying machinery. Lectures, recitations, and designing. Elective for seniors. Winter, 11:30; Professor Church, 14 M. H.

46. Heating and Ventilating. Principles, comparative merits and design of various systems of ventilating, heating by hot air, hot water, steam, electricity. A careful study of the systems in the different University buildings. Prerequisite, Course 4, Physics. Lectures and recitations. Carpenter's "Heating and Ventilating Buildings." Elective.

Hours to be arranged. Professor Jones, 16 M. H.

47. Materials of Engineering. A study of the various materials used in engineering, the source, manufacture, qualities, cost, etc. Prerequisite, Mechanics, 4.

Hours to be arranged. Professor Jones, 16 M. H.

Courses in Electrical Engineering.

For elementary courses in the theory of electricity, see the announcements under the department of Physics.

50. Applied Electricity. An elementary course for special students. Management of dynamos and motors, wiring calculations, house wiring and line construction. This course will be given upon the application of four or more students.

Spring, 11:30; Professor Jones, 16 M. H.

51. Electrical Machinery. Principles of design, construction and operation of direct current machinery. Prerequisite, Course 17, Physics. Three-fifths course.

Fall, 9:30; Mr. Dickinson, 15 M. H.

52. Electrical Distribution. Distribution of electrical energy for light and power by direct and alternating currents. Prerequisite, Courses 17 and 18, Physics. Three-fifths course.

Fall, 10:30; Professor Jones, 16 M. H.

53. Electric Lighting. Principles of design, construction, installation and operation of electric-lighting systems; electrical distribution for lighting circuits; manufacture, care, and use of arc and incandescent lamps. Prerequisite, Course 17, Physics, and to accompany Course 61, Mechanical Engineering. Crocker's "Electric Lighting." Two-fifths course. Spring, 9:30; Professor Jones, 16 M. H.

54. Electric Railroads. Principles of design, construction, installation, operation and management of electric railway machinery and electric railroad systems, and distribution for railway circuits. Prerequisite, Course 51, and to accompany Course 62. Two-fifths course.

Spring, Wednesday and Friday, 10:30; Mr. Dickinson, 15 M. H.

55. Electrical Machinery. Principles of design, construction and operation of alternating current machinery. Prerequisite, Course 17, Physics. Three-fifths course.

Winter, 9:30; Mr. Dickinson, 15 M. H.

56, 57 and 58. Designing and Drawing. Designing and drawing electromagnets, dynamos, motors, switch-boards and central stations. Each three-fifths course or 9 hours per week.

Fall, Winter, and Spring, Monday, Wednesday, Friday. 1:30; Professor Church and Mr. Dickinson, 25 M. H.

59. Electric Power Transmission. Transmission of power by electricity from generating station operated by steam and water power for utilization in lighting, mining, traction and manufacturing. Prerequisite, Course 52. Three-fifths course.

Winter, Monday, Wednesday, Friday, 10:30; Professor Jones, 16 M. H.

60, 61, 62. Electrical Engineering Laboratory. Practical management of electrical machinery; coupling generators; calibration of electrical engineering measuring instruments; switch-board tests; determination of efficiencies and characteristics in laboratory and commercial tests of dynamos and motors; comparison of methods; investigation of losses; location of faults; testing arc and incandescent lighting circuit. Prerequisite, Course 17, Physics. To accompany Courses 51, 53, and 54. Each two-fifths course.

Fall, Winter, Spring, Tuesday, Thursday or Saturday, 8:00; Professor Jones and Mr. Dickinson, 4 M. H.

65. General Electrical Engineering. A course for students taking the Mechanical Alternative. Lectures, recitations and observation along lines of practical construction and consulting engineering . Prerequisite courses 17 and 18 Physics. No credit will be allowed for this course for students taking 52 and 59.

Fall, 10:30; Mr. Dickinson, 15 M. H.

66. Telephone Engineering. A course for advanced students. Lectures and recitations on the development, the physical theory, the construction and the operation of the telephonic apparatus.

Winter, 11:30; Mr. Dickinson, 15 M. H.

Courses in Experimental Engineering.

70. Mechanical Laboratory. The comparison of experimental results and determination of physical laws from observation; theory, calibration and use of slide rule, planimeters, steam engine indicators, steam gauges, and thermometers; calorimeter tests for heating value of coal and natural gas; testing lubricating oils; analysis of flue gases. Prerequisite, or accompanying Course 2, Mechanics. Carpenter's "Experimental Engineering." One-third course.

Fall, Saturday, 8:00; or Friday 1:30; Professor Jones, 10 M. H.

71. Power Measurements. Efficiency tests of simple engines, pumps, dynamos, motors, and machinery of power transmission; measurements of power by Prony brake, rope brake, Alden absorption dynamometer, transmitting dynamometer; steam engine indicator practice and simple valve setting; determination of the quality of steam, test of small steam boiler. Prerequisite or accompanying Course 12, Mechanics. One-third course.

Spring, Saturday, 8:00; or Friday, 1:30; Professor Jones, 10 M. H.

72. Testing Materials of Engineering. Tensile, torsional, compressive, and transverse tests of wrought iron, cast iron, steel and timber; transverse, compressive and absorption tests of stone, brick, cement and concrete; also tests for fineness, specific gravity, time of setting and constancy of volume of cement. Prerequisite, or accompanying Course 4, Mechanics. One-third course.

Winter, Saturday, 8:00 or Friday 1:30; Professor Jones, 10 M. H.

73. Mechanical Engineering Laboratory. Experimental work in thermodynamics, tests of thermometers, indicators, injectors, calorimeters, steam and oil separators, non-conducting coverings; flow and quality of steam, practice in valve setting, behavior of steam in the cylinder; economy tests of hot air engines, steam engines, gas engines and steam boilers; or such other work as may be assigned. Prerequisite, Course 40, Mechanical Engineering. Two-fifths course.

Fall, 1st section 8:00, Saturday; 2nd section 8:30, Tuesday; 3rd section 8:30, Thursday; other sections as assigned.

Professor Jones, 10 M. H.

74. Mechanical Engineering Laboratory. Tests of steam heating apparatus; duty trials of steam pumps; efficiency tests of air compressors, hydraulic motors, fans, blowers, etc.; application of Hirn's analysis to the steam engine; flow of water through pipes and orifices, calibration of water meters. Two-fifths course.

Winter, 1st section 8:00 Saturday; 2nd section 8:30 Tuesday; 3rd section 8:30 Thursday; other sections as assigned.

Professor Jones, 10 M. H.

75. Mechanical Engineering Laboratory. Combined tests of performances of boilers, engines and electrical and other power transmission machinery; testing of plants away from the University when the opportunity affords; special research work. Prerequisite 74, Mechanical Engineering. Two-fifths course.

Spring, hours to be arranged. Professor Jones, 10 M. H.

76. Engineering Laboratory. Commercial tests and research work. For graduates and advanced students. Prerequisite, Course

75. Credit will be given on the basis of the time spent in the laboratory and the progress of the student.

Hours to be arranged. Professor Jones, 10 M. H.

For laboratory courses in elctrical engineering see courses 60, 61 and 62.

MECHANICS AND APPLIED MATHEMATICS.

Professor Emory.

1. Elementary Mechanics. The principles of rational mechanics treated without the calculus and from the physical standpoint. For students pursuing the certificate Electrical course and those preparing for the work of the artisan, foreman, or draughtsman. Prerequisite, Trigonometry. Spring, 10:30; 20 M. H.

2. Statics. A study of the composition of forces, polygon of forces, magnitude and resolution, equilibrium of concurring forces, resultants of parallel forces, both by analytical and graphical methods, moments of forces, couples, equilibirum of non-concurrent forces, center of gravity and moment of inertia by analytical and graphical methods, the stability of structures, and the stresses in framed and jointed constructions. Prerequisite, the calculus.

Spring, 8:30; 20 M. H.

3. Kinetics. Laws of motion, motion in vacuo and in resisting medium, central forces, centrifugal force, the pendulum and governor, impulse, work, energy, power, modulus of machines, kinetic energy of revolving masses, work of variable forces, duty of engines, impressive forces, motion of rigid bodies,fly-wheels, conservation and dissipation of energy. Prerequisite, Course 2.

Fall, 9:30; 20 M.H.

4. Applied Mechanics. Strength of Materials. Resistance and elasticity of materials, pipes, cylinders and riveted joints, cantilever and simple beams, tension and compression, resilience, shear and torsion, strength of timbers, iron, steel, stone, cement, elastic limits of materials, factors of safety. Design of simple structures. Prerequisite , Course 3. Winter, 9:30; 20 M. H.

5. Development and Utilization of Power. Lecture course. A study of the history of the development of the modern pumping engine, railroad locomotive, naval and stationary steam engine, with illustrations and descriptive study of the accessories of such generators. Course arranged for general arts students as well as for engineering students. Required of engineering students; elective for sophomores or seniors. Fall, 8:30; 20 M. H.

6. Development and Utilization of Power. Lecture course. History of the development and present practice in the use of pumps, heaters, condensers, economizers, purifiers, pipe connections, chim-

neys, boilers, and other accessories for steam plants, hot air, gas engines, oil engines, wind and hydraulic engines, binary vapor engines, air compressors, and other sources of power. Prerequisite, Course 5. Winter, 8:30; 20 M. H.

Any one of the following courses or half courses will be given in any quarter and when the hour can be arranged.

7. Development and Utilization of Power. Text-book course. Mathematical study of power, the Clausius, Rankine and physical methods of anaylsis of power development, measurement of power, thermodynamics of perfect gases and of vapors, of gas engine and steam cycles, computation of the size and efficiencies of generators, and a complete calculation for power plant to perform some special work, such as water supply, coal handling or other mining operation, etc. Advanced course in power, study of the economical development of power and the designing of power. For graduates. 20 M. H.

8. Materials of Engineering and Construction. Seminary course in the study of the various materials used, in engineering, architecture, and manufactures, their occurrence, modes of treatment, uses, costs, efficiency, etc. For engineers and others having preparation. 20 M. H.

9. Building Superintendence and Architectural Engineering. Construction and inspection of foundations, stone, cement, brick work, iron and steel work, carpentry and mill work, roof trusses, roof coverings, cage construction and veneer work for high buildings, preservation of iron work, fire proofing, plastering, inspection of gas fitting, electric wiring, systems of heating and ventilating, etc. For seniors and graduates. 20 M. H.

10. Applied Mathematics. A special course for those making mathematics their major and those who desire a study of its applications to mathematical instruments and appliances and to the methods of analysis. An application of the calculus to mechanics and physics and to exact measurements. Prerequisite, integral calculus. One-half course, may accompany course 11. 20 M. H.

11. Method of Least Squares. Errors of observations; principles of probability, weights of observations, principle of least squares, probable errors of observations, correction of observations, normal equations, empirical formulae. Seniors and graduates. Prerequisites, physics and calculus. 20 M. H.

12. Differential Equations. Study of the differential equation of the first order and first degree, first order and higher degrees, including special applications to mechanical and physical problems. Prerequisite, calculus. Half course or full course. 20 M. H.

III. THE COLLEGE OF AGRICULTURE.

THE FACULTY.

DANIEL BOARDMAN PURINTON, L.L.D., President.

THOMAS CLARK ATKESON, Ph. D., Dean and Professor of Agriculture.

BERT HOLMES HITE, M. S., Professor of Agricultural Chemistry.

JOHN LEWIS SHELDON, Ph. D., Professor of Bacteriology.

THOMAS CARSKADON JOHNSON, A.M., Instructor in Horticulture and Botany.

WALTON KIRK BRAINERD, B. S., Instructor in Dairying.

HORACE ATWOOD, M. S. Agr., Instructor in Poultry Industry.

JAMES A. WAUGH, V. S., Instructor in Veterinary Science.

ALEXANDER REID WHITEHILL, Ph. D., Professor of Chemistry.

SAMUEL B. BROWN, A.M., Professor of Geology.

THOMAS EDWARD HODGES, A.M., Professor of Physics.

JOHN BLACK JOHNSTON, Ph. D., Professor of Zoology.

RUFUS WEST, Assistant in Metal Working.

THOMAS HOWARD CATHER, Foreman of Machine Shop.

JOHN B. Grumbein, Foreman of Wood Shop.

AIM AND SCOPE.

The movement for agricultural education is one of the most prominent and most important educational movements of to-day. It is now realized that the farmer must be specially educated for his business as well as the engineer or the doctor or the teacher for his. Farming, in its various branches, will not be a success until this principle is put into practice.

This College offers to students an education designed to fit them

for the practice of agriculture, while opportunity for general culture is also afforded. Its object is the training of students to be, not only progressive farmers but good citizens and successful business men as well. In other words, it seeks to provide an education suitable to the needs of rural people.

The technical portion of the courses offered in this College constitutes about one-half of the entire work of the students. In studying these technical subjects, the aim is not so much to teach rules of practice, as to make plain the principles of agricultural science.

EQUIPMENT.

The laboratories and apparatus of the scientific deparments of the University, and the libraries of the Agricultural Experiment Station and University, are at the command of the students in the College of Agriculture. The farm of the Agricultural Experiment Station, together with its gardens, experiment plats, laboratories, and collections, are available for students desiring to acquaint themselves with the practical and scientific methods of conducting agricultural operations, and to investigate scientific questions relating to the progress and development of agriculture.

The farm is equipped with barns, stables, and other buildings, and presents a variety of soils and conditions existing upon many of the farms of the state. Upon this farm, are kept different varieties of farm animals and the most improved agricultural implements. Facilities are provided for studying the most economic methods of handling live stock and their products, including poultry.

COURSES OF STUDY.

DEGREE COURSE.

Bachelor of Science in Agriculture.

Entrance Requirements. Students will be admitted to the Freshman class in this course on completion of thirty preparatory courses, of which, six courses in English, three in mathematics, three in history, two in chemistry, one in physics, and one in botany, are prescribed, and the remaining fourteen, elective.

College Requirements. This degree will be conferred upon any student who satisfies the above entrance requirements and satisfactorily completes forty-two college courses, of which two in crop production, two in animal industry, one in dairying, three in horticulture, two in veterinary science, one in agricultural chemistry, one in agricultural physics, and one in entomology are prescribed.

At least six additional courses must be elected from the technical courses announced in the College of Agriculture, and the remaining twenty-two may be elected from the courses given in the

College of Arts and Sciences. The dean of the College of Agriculture will act as the student's class officer and adviser, and will have authority to require such elective courses as he may consider necessary or advisable.

DIPLOMA COURSE.

This is a two year course in agriculture, open to students with an intelligent knowledge of English, arithmetic, geography, and United States history. A diploma of graduation will be granted on the completion of this course, which consists of twenty-four courses, twelve of which must be elected from the technical courses announced in the College of Agriculture, subject to the advice of the dean of the College.

The remaining courses may be elected from the courses given in the Preparatory School, the College of Agriculture, or the College of Arts and Sciences, subject to the advice of the dean of the College of Agriculture. No preparatory course will be accepted for advanced standing.

CERTIFICATE COURSE.

No entrance requirements are made for this course. A certificate, indicating the work done, will be granted on the completion of this course, which consists of twelve selected technical courses announced in the College of Agriculture. It is confidently believed that many young and middle aged men who are engaged in farming, or expect to become farmers, will find it greatly to their advantage to devote one school year to this course, if for any reason they cannot give the time necessary to complete a longer course. Students may complete this course in any three terms of twelve weeks each.

SHORT COURSES.

One Quarter Course in Agriculture.

This course covers a period of twelve weeks, during the winter term, and is designed to give students, in the briefest time possible, some knowledge of the principles of agriculture, horticulture, soils, farm crops, fertilization, and the principles of breeding, caring for, and feeding animals.

One Quarter Course in Animal Industry.

This is a winter quarter course in veterinary science, stock breeding, stock feeding, and a general survey of the subject of animal industry. The purpose is not to make veterinary surgeons,

but to enable students to diagnose properly the principal diseases among farm animals, to treat common accidents, to use preventive measures, and to understand the principles of breeding and feeding domestic animals.

One Quarter Course in Horticulture.

This is work which may be taken in the winter quarter and consists of studies in plant propagation (course 1); principles of fruit culture and pomology (course 2). Instruction in botany and entomology should be taken parallel with these subjects.

One Quarter Course in Poultry Industry.

This course is designed to meet the needs of those who expect to engage in the poultry industry. Practice will be given in the operation of different makes of incubators and brooders; feeding for egg production; fattening fowls for market; caponizing; judging and mating. The lectures will cover the origin, classification, and characteristics of domestic fowls, breeding, feeding, management, and the construction of poultry buildings.

One Quarter Course in Dairying.

Instruction will be given both by lectures and demonstrations, and each student will have an opportunity to become expert in the practical operations of dairying. Among the subjects which will be discussed will be the use of the Babcock test, the ripening of cream, separating, churning, salting, working, and packing butter; the care of milk; the selection and care of dairy cows, feeds, and feeding; the construction and care of stables, etc. This course is intended to be very practical and should be helpful to anyone who expects to labor in this field.

DEPARTMENTS OF INSTRUCTION.

Only the technical courses are described here. For the other courses which may be elected by students in the College of Agriculture, see the courses in the College of Arts and Sciences.,

AGRICULTURE.

Professor Atkeson.

1. Soils and Farm Crops. First principles of agriculture; origin, cultivation, drainage, and classification of soils; indications of fertility; production and handling of farm crops; preparation of land for the seed and subsequent care of the plant. Lectures and recitations. Fall, 9:30; 6 M.

2. Fertilizers and Manures. Farm yard manures; humus and vegetable molds; composts; modes of applying manures; maintenance of meadows and pastures by manuring; chemical fertilizers; a general discussion of the methods of extensive and intensive farming. Lectures and recitations. Winter, 9:30; 6 M.

3. Agricultural Science. Relation of soil and air to plants; the atmosphere as a source of plant food; relations of water to the soil; movements of water in the soil; irrigation; drainage; soils as chemical agents; rotation of crops; how plants grow and feed. Lectures and recitations. Spring, 10:30; 6 M.

4. Rural Economics. Farming as a business; method of keeping farm accounts; a brief study of the laws that directly concern the farmer; how the farmer is affected by industrial and social conditions; the mutual relations of agriculture and other industries; value and prices of land and agricultural products; land tenure; cooperation; a careful study of all questions affecting agriculture. Lectures and recitations. Spring, 9:30; 6 M.

5. History of Agriculture. A general history of agriculture, beginning with ancient times and tracing the history of agriculture, agricultural methods, and the development of trade and commerce through all ages to the present; a special study of the present practices and methods of competing with foreign countries. Lectures and recitations. Spring, 11:30; 6 M.

6. Commerce and Manufacture. A description of the surface of the earth, with special reference to the production, manufacture, transportation, and exchange of articles of trade; a general outline of the countries, of the world, soil, climate, agricultural products, forests, manufactories, quarries, mines, centers of industry, foreign relations, ways of communication, social relations and conditions, imports, exports, and markets; special attention to the study of the United States. Fall, 10:30; 6 M.

7. Forage Crops. How to cultivate, harvest, store, and use forage crops; silos and silage; soiling, folding, and pasturing. Lectures and recitations. Spring, 8:30; 6 M.

8. Cereal Crops. A comprehensive study of the history, characteristics, and cultivation of the grain producing plants, as related to American and West Virginia conditions. Lectures and recitations. Winter, 10:30; 6 M.

9. Farm Equipment. Selecting, planting, and equiping farms; planning and erecting farm buildings and fences; building roads; farm vehicles and machinery; farm implements and the application of different kinds of power for farm purposes. Lectures and recitations. Half course. Fall, 11:30; 6 M.

10. West Virginia Agriculture. Agricultural, horticultural, dairy and live stock possibilities of West Virginia; local conditions throughout the state will be considered, in connection with their adaptation to special agricultural purposes. Class discussions and required papers on assigned subjects; reference reading; lectures.

Half course. Fall, 11:30; 6 M.

ANIMAL HUSBANDRY.

Professor Atkeson and Mr. Brainerd.

1. History and Characteristics of Breeds. This course deals with the improved breeds of horses, cattle, sheep and swine. A study of the origin, development, distribution and characteristics of each breed will be made.

Fall, 8:30; Mr. Brainerd, M.

2. Principles of Breeding. What is meant by breeding; how to attain the ideal; heredity; atavism, variation, selection, correlation, in-and-in breeding, cross breeding and grading; influence of climate and environment upon habits and development. Lectures and recitations. Winter, 11:30; Professor Atkeson, 6 M.

3. Feeds and Feeding. Laws of animal nutrition; composition and digestibility of feeding stuffs; feeding farm animals; feeding for milk, muscle, and fat; sources of food; how the animals use food; preparation of food; influence of food on animal form; study of rations and feeding standards. Lectures and recitations.

Winter, 8:30; Professor Atkeson, 6 M.

4. Live Stock Management. Care of domestic animals in barn and field; the management of flocks and herds; the care of work animals and driving horses. Lectures and recitations.

Fall, 8:30; Professor Atkeson, 6 M.

5. Stock Judging and Pedigree. This course will consist of a study of standards and practice in judging by score cards and the tracing and writing of pedigrees. The University stock and that of near-by stock men will be used in judging. Half-course.

Spring, hour to be arranged; Mr. Brainerd, M.

DAIRYING.

Mr. Brainerd.

1. Home Dairying. This course consists of a study of the care of milk, separators and separation, ripening of cream, including starters and the acid test, churns and churning, working, salting, printing and packing butter, Babcock test for butter fat, and care of dairy machinery. Enough laboratory work will be given to make each student proficient in each of the above operations.

Fall, Winter, and Spring, 1:30; M.

2. Testing Dairy Products. This course includes a study of the composition of milk, tests for butter fat, tests for preservatives in milk, application of lactometer, calculating butter and cheese yields, and butter analysis. Winter, hour to be arranged; M.

3. Dairy Bacteriology. This course consists of a study of bacteria as they affect the dairyman, including contamination of milk, fermentation in milk, disease germs transmissible to man through milk, and preservation of milk for commercial purposes. Half course. Spring, hour to be arranged; M.

4. Dairy Refrigeration. This course is designed to give the student a working knowledge of the manufacture and preparation of milk and water ices. A study will be made of the principles and operation of freezing machines, freezing mixtures, "fillers," flavors and flavoring, and the preservation of frozen mixtures. It is expected that this course will enable the dairyman to dispose of his products to better advantage.

Spring, hour to be arranged; M.

HORTICULTURE.

Mr. T. C. Johnson.

The instruction offered in this department is of a practical nature and stress is laid upon that part which is particularly applicable to the conditions of West Virginia.

1. Plant Propagation. The instruction offered under this heading not only serves as a foundation for the courses in fruit growing and vegetable gardening, but also explains the theory of plant life, the essentials for its thrifty existence, and the means at man's disposal for providing these conditions. The chief topics considered are germination, multiplication by cuttings, layers, stolons, buds, grafts, the processes of reproduction, such as pollination and its effects upon plant structures, and artificial pollination. Opportunity is given for actual practice in connection with these topics.

One term in botany must be studied before, or parallel, with this course. Fall, 8:30; 9 A.

2. Fruit-Growing. This course aims to give students a knowledge of the theory and practice of fruit-growing, with special reference to West Virginia conditions. The chief topics considered are the location of a fruit plantation, soils, sites, choosing varieties, the selection of nursery stock, planting, the why and how of orchard tillage, fertilizing the orchard, pruning, how to combat insects and diseases, small fruit culture. As far as possible the lectures are illustrated by practical handiwork. Winter, 8:30; 9 A.

3. Vegetable Gardening. An untechnical discussion of the principles underlying the propagation, planting and cultivation of gar-

den vegetables. Some of the points considered are the necessary capital and equipment; the location, garden sites, and soils; hot bed construction and management; rotation of crops; choosing varieties; marketing and storing; injurious insects and diseases; specific suggestions on the cultivation of each of the common garden vegetables. Practical work in making hot beds, seed-sowing, etc.

Spring, 8:30; 9 A.

4. Plant Breeding. A study of evolution and heredity, and the methods of plant breeding, as applied to cultivated plants. This course is designed to meet the requirements of advanced students.

Prerequisites: Two courses in botany, and courses 1 and 2 in horticulture.

Hours by appointment when three or more students have chosen the course.

5. Forestry. This course is devoted to the consideration of the principles of scientific forestry. Some of the topics are protection of growing timber crops, re-forestation, forest management, equable climate, and future timber supply. This work is open to any student who has had elementary training in botany.

Hours by appointment when three or more students have chosen the course.

6. Landscape Gardening. This course is designed with particular reference to the planting and care of home and school grounds. It includes suggestions for the arrangements of trees, shrubs, and flowers about the home, so as to secure the most artistic effect; the choice of plants; the position and construction of walks and drives; the making and care of lawns. This is a popular course of ten lectures for which no University credit is given. Winter, 9 A.

AGRICULTURAL BACTERIOLOGY.

See announcement in College of Arts and Sciences under Departments of Instruction.

VETERINARY SCIENCE.

See announcement in College of Veterinary Science.

ECONOMIC ENTOMOLOGY.

1. Economic Entomology This course is conducted with a view to stimulating an interest in the study of insect life, and giving instruction along lines especially suited to the needs of the agricultural student. Text-books and laboratory demonstrations will be used to give such elementary instruction in economic and systematic Entomology as will give the student a general knowledge of the science. Instruction in the application of this knowledge will be given by means of practical field and research work.

AGRICULTURAL CHEMISTRY.

Professor Hite.

1. Agricultural Chemistry. A course of lectures on the application of chemical principles to farm economy. The relation of chemistry to agriculture; relation of the plant to soil and air; sources of plant food; osmosis and osmotic pressure; mechanism of plant nutrition; germination and elaboration of plant tissue; soils—their origin, formation, composition, classification, deterioration and improvement; nitrification of soils. Prerequisite, general elementary chemistry. Reference book, Johnson's Agricultural Chemistry.

Spring, 10:30; A.

2. Agricultural Chemical Analysis. This course includes the analysis of farm products, soils, ashes, fertilizers, mineral and drinking waters, etc. Prerequisites, qualitative and quantitative analysis and Agricultural Chemistry 1, Laboratory guide, Wiley's Principles and Practice of Agricultural Chemical Analysis.

Fall, Winter, Spring, 2:00; A.

AGRICULTURAL PHYSICS.

Professor Hodges.

15. Agricultural Physics. Mechanical analysis of soils; designing and construction of farm buildings—economy in form and material ;ventilation and regulation of temperature; draft of farm machinery ; farm motors and road construction. Open to all college students. Requirements, Physics 1, or equivalent work elsewhere. King's Agricultural Physics. Spring, 8:30; 11 S.

MECHANIC ARTS.

Professor Jones, Mr. West, Mr. Cather, and Mr. Grumbein.

1. Woodworking. Instruction in carpentry, joinery, and other bench work; exercises with the fundamental tools in soft and hard woods, and in matching, molding, joining, and making typical framed work; models of doors, gates, bridges, etc. Nine hours per week, or 3-5 course.

Fall, Monday, Wednesday, and Friday, 1:30; or Tuesday and Thursday, 1:30; and Saturday, 8:00. Mr. Grumbein, 21 E.

2. Forging. Exercises in drawing out and sizing, forming and welding, jointing and fitting iron; steel forging, tempering, annealing; determining quality of iron and steel and strength of welded joints; exercises in making and dressing typical farm tools. Nine hours a week, or a 3-5 course.

Winter, Monday, Wednesday, and Friday, 1:00; Mr. West, 7 E.

3. Machine Shop. Iron work at the bench, chipping, filing, fitting, scraping , polishing; hand work with machine tools; drilling, tapping; brazing, tinning, soldering, laying out, cutting and forming sheet metal. Nine hours per week, or 3-5 course.

Spring, Monday, Wednesday, and Friday, 1:00; Mr. Cather, 11 E.

IV. THE COLLEGE OF LAW.

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.

ST. GEORGE TUCKER BROOKE, LL.D., Professor of Common and Statute Law.

WILLIAM P. WILLEY, A.M., Professor of Equity, Jurisprudence, and Commercial Law.

EDWIN MAXEY, D.C.L., LL.D., Associate Professor of Law.

COURSES OFFERED IN THE COLLEGE OF LAW.

There are three courses offered:

1. A course leading to the degree of Bachelor of Laws.
2. A course leading to a diploma of graduation in law.
3. A course leading to the degree of Master of Laws.

ADMISSION.

1. To enter the course leading to the degree of Bachelor of Laws, the requirements are the same as the requirements to enter the College of Arts and Sciences.

2. To enter the course leading to a diploma of graduation in law, the requirements are any twenty-four of the preparatory courses which may be offered for admission to the College of Arts and Sciences.

3. For the course leading to the degree of Master of Laws, see below.

4. Students upon registering in the College of Law, shall declare their intention (a) to become candidates for the diploma, or (b) for the degree of LL.B., or (c) to take a special course in preparation for the examination for admission to the bar.

5. When students register as special students for the bar examination, they will not be permitted to change to the regular courses, except by the unanimous consent of the law faculty, and with the approval of the Committee on Classification and Grades.

6. Special students may take the regular course examinations and receive, for the courses passed, credit for the bar examination, but no credit shall be given for such courses toward a diploma or degree.

7. A "course" represents the amount of work done by a class meeting five times a week for one quarter (twelve weeks).

SPECIAL STUDENTS.

Persons who are at least twenty years of age, and who are not candidates for a degree or for a diploma, but who desire to prepare for the examination for admission to the bar, will be admitted to the College of Law as special students.

Any special student who completes the whole law course will receive a certificate of that fact signed by the law faculty, and any special student who requests it will receive from the law faculty a certificate showing the time he has spent in the College of Law, and the subjects completed.

CONDITIONAL ADMISSION.

Students who have not had opportunity to make the preparation required for admission may enter the Preparatory School of the University and complete their preparation. If a student lacks no more than three courses of the necessary preparation, he may be admitted conditionally, and complete his preparation while carrying on some of the studies of the Freshman year.

ADVANCED STANDING.

A candidate for advanced standing in law may receive credit for such of the courses required in the junior year as he may be able to pass satisfactory examinations upon before the faculty of the College of Law. Application for such examinations must be made by the student at the time of his matriculation in the University. Such examinations are held only once a year, namely, on the third, fourth, and fifth days of each fall quarter. These examinations are not open to students who have previously taken courses in the College of Law, but in exceptional cases, with the consent of the law faculty and the approval of the Committee on Classification and Grades, which must be obtained before the close of the preceding spring quarter, students who have taken work in law may take advanced standing examinations for not more than two courses. The student should note that the instruction in Blackstone is given so largely by means of lectures that a study of the text without the lectures, or their equivalent, will not enable the student to pass the examination.

No student will be registered for any senior course in law who has not received credit for at least eight junior law courses; he

must further produce a certificate from the Committee on Classification and Grades that he has satisfied the academic entrance requirements; no credit for advanced standing will be given for any branches of the senior year, and no degree or diploma will be granted to any student who has not been in actual attendance upon the lectures during the whole of his senior year, nor will any student be admitted to the regular examination in any subject at the end of any quarter who has been irregular in attendance upon the lectures of that course, although he may have registered for the course at the beginning of the quarter.

DEGREES.

BACHELOR OF LAWS.

The degree of Bachelor of Laws will be conferred upon any student who satisfies all entrance requirements, and satisfactorily completes twenty-two college courses in general culture, and twenty courses in law: of the twenty -two college courses the following are required, viz.: English 10 and 11 (Rhetoric) and English 39 and 40 or 41; Elocution 6; History 20, 21, 22, and 23; Economics 1 and 4. Twenty courses in law constitute the regular two years law course. Moot court practice for two terms constitute two of these courses. No candidate for the degree of Bachelor of Laws shall be allowed credit for any course in law until he shall have satisfied all entrance requirements, and shall have received credit for at least nine courses in academic work; nor shall any candidate for the degree of Bachelor of Laws be admitted to any senior class in law until he shall have received credit for all the academic work required for this degree. Graduates of the West Virginia University, or other colleges or universities of recognized standing, and students who have taken the required number of courses in general culture at a recognized college or university are admitted immediately to the junior class, and may complete the course and receive the degree of Bachelor of Laws in two years.

MASTER OF LAWS.

The degree of Master of Laws will be conferred upon the following conditions:

1. The candidate must have previously received the degree of Bachelor of Laws from this College of Law, or some other law school of equal grade.

2. He must pursue the study of law in this College for one year and complete to the satisfaction of the faculty such a course as may be required.

3. He must, at the end of the year, present to the faculty a satisfactory thesis on some approved subject.

This course will consist mainly of original investigation, under the direction of the faculty of the College of Law. Most of the work will be done in the law library, the "lawyer's laboratory." Legal questions will be given for solution, and cases for analysis. Cases without syllabi will be given to the student, who will be required to make a complete report of each case,—the questions involved, how they arose, the pleadings, how the case was decided in the inferior court, how it was decided in the appelate court on appeal or writ of error, and the grounds on which the decision was made. The syllabus of the case will then be required, careful distinction being made between the decision and the mere obiter dictum of the judge who announced the decision.

DIPLOMA OF GRADUATION IN LAW.

A diploma of graduation in law will be conferred upon any student who satisfies the entrance requirements to the course leading to the diploma, and passes satisfactory examinations in all the subjects taught in the College of Law.

CREDIT TOWARDS THE DEGREE OF BACHELOR OF ARTS.

The courses in constitutional law, international law, and Blackstone may be counted toward the degree of Bachelor of Arts.

COURSES OF INSTRUCTION.

There is no prescribed order in which a student in the four years degree course must take the general culture courses above indicated, which are required in the freshman and sophomore years. Each student will arrange with his class officer at the beginning of each quarter as to the courses he will take during that quarter. The class officer will use his judgment in the assignment of studies. It is his duty to see that each student under his charge takes work which will be most beneficial.

The studies of the junior and senior years constitute the professional courses in law. These studies are all required, and must be taken in a designated order, unless special permission is obtained to vary that order. Students who are taking the two years diploma course have the same studies as juniors and seniors in the four years degree course.

The professional course offered by the College of Law is the full, complete, and comprehensive course of the modern law school, which will prepare students for the practice of law in any part of the United States.

The aim of the College of Law is to make, not merely theoreti-

cal, but practical lawyers, who will go from the lecture-room to the bar thoroughly equipped for the active duties of the profession, and to start them in life with high ideals of professional ethics and dignity.

The methods of instruction consist of lectures, references of illustrative cases, examinations from approved text-books, quizzes on lectures, the drawing of the various legal papers requisite in the ordinary practice of the law, and practice in moot courts. There are oral examinations daily on the subjects of the lectures and the text-books used, and comprehensive written examinations on each topic or branch of law as completed.

The professional part of the regular law course is designed to occupy the student two full years, and is divided between the college quarters in such a manner that students may with advantage enter at the beginning of any quarter and complete and obtain credit for the branches taught during that quarter. The following schedule shows the division of the quarters and subjects during the junior and senior years.

PROFESSIONAL COURSES IN LAW.

Junior Year.

Fall Quarter.

Blackstone (Book I). Professor Brooke.
Full course, 8:30; 27 W.
Contracts. Professor Willey. Full course, 9:30; 26 W.
Criminal Law. Professor Maxey.
First eight weeks, 11:30; 26 W.
Agency. Professor Maxey. Last six weeks, 10:30; 28 W.

Winter Quarter.

Blackstone (Book II). Professor Brooke.
Full course, 8:30; 27 W.
Negotiable Paper, Suretyship, and Guaranty. Professor Willey.
Half course, 9:30; 26 W.
Bailments. Professor Willey. Half course, 9:30; 26 W.
Criminal Procedure. Professor Maxey.
Full course, 11:30; 28 W.

Spring Quarter.

Real Property. Professor Brooke. Full course, 8:30; 27 W.
International Law. Professor Maxey. Full course, 9:30; 28 W.
Insurance. Professor Maxey. Full course, 10:30; 28 W.
Civil and Criminal Evidence. Professor Willey.
Full course, 11:30; 26 W.

Senior Year.

Fall Quarter.

Corporations. Professor Maxey. Full course, 9:30; 28 W.
Common Law Pleading and Practice. Professor Brooke. Full course, 10:30; 27 W.
Equity Jurisprudence and Equity Pleading. Professor Willey. Full course, 11:30; 26 W.

Winter Quarter.

Constitutional Law. Professor Maxey. Full course, 9:30; 28 W.
Blackstone (Book III). Professor Brooke. Full course, 10:30; 27 W.
Equity Jurisprudence and Equity Pleading. Professor Willey. Full course, 11:30; 26 W.
Court Practice. Professors Brooke, Willey, and Maxey. Full course.

Spring Quarter.

Sales. Professor Willey. Half course, first six weeks, 9:30; 26 W.
Partnership. Professor Willey. Half course, last six weeks, 9:30; 26 W.
Torts. Professor Brooke. Full course, 10:30; 27 W.
Court Practice. Professors Brooke, Willey, and Maxey. Full course.

TEXT BOOKS.

The text-books used in the College of Law are carefully selected and are such as will be useful to the student throughout his professional career. They are all kept at the University, and sold to the student at a discount from the regular prices. They are as follows:

Blackstone's Commentaries.
Clark on Contracts.
Elliott on Insurance.
Clark on Criminal Law.
Clark on Criminal Procedure.
Norton on Negotiable Paper.
Hale on Bailments.
Mechem on Agency.
Cooley's Principles of the Constitution.
Shipman's Common Law Pleading and his Equity Pleading.

Brooke's Notes on Pleading and Practice in West Virginia.
Clark on Corporations.
Eaton's Equity.
Tiedman on Real Property.
Maxey's International Law.
Pollock on Torts.
Greenleaf's Evidence.
Tiffany on Sales.
George on Partnership.

EXAMINATION FOR ADMISSION TO THE BAR.

It is made the duty of the law faculty by the laws of the state to examine all applicants for admission to practice law. These examinations are held at the University on the first Wednesday after the first day of January, the first Wednesday in April, and the last Wednesday in September, in each year.

The examinations cover the branches taught in the Junior and Senior years (the prescribed professional course) in the College of Law. The requirements for admission to these examinations are, that the applicant shall pay a fee of $5, and that he shall have studied law for two years either in private or at some law school. He must also file with the law faculty a detailed statement of the time, place and extent of his academic schooling, including the branches of study, and if the faculty should be in doubt as to the sufficiency of these entrance requirements the applicant will be subjected to a special examination. In all cases, if lack of such elementary English education appears upon the face of the law examination papers, it will be considered a very heavy discount from the value of the paper. After September 1907 law students who enter the law school only to prepare for the bar examination will be required to have, as an entrance requirement, the academic credits that are now required for entrance upon the diploma law course; but special students who pass all their examinations in course need not produce proof of having read law before entering the special course.

LAW LIBRARY.

The College of Law has now a good library room, with stack-room attached, which contains about two thousand volumes of well selected books. It contains the United States Supreme Court reports, also Massachusetts, New York, Pennsylvania, Virginia, West Virginia Reports, etc., a good selection of text-books, and is under

the charge of the University librarian. The law library, small as it is, is much appreciated. It will be further enlarged.

MOOT COURTS.

However familiar the student may be with the principles and theories of law in all its branches, he will be more or less awkward and confused when he goes to the bar and attempts for the first time to make a practical application of legal remedies, unless he has been previously drilled in such practice. The moot court supplies, as well as anything other than a judicial tribunal can do, the drill and discipline necessary to prepare the student for the trial tables. In these courts, he is taught to apply legal remedies according to the common law and chancery systems of practice; to bring suits, draw papers, pleadings, briefs, etc., to take the various steps incident to bringing a cause to trial, and to try it according to the rules of evidence, including the argument, charge, verdict, motion in arrest of judgment, writ of error, etc. The moot court is organized in all its details in strict conformity to the practice of the regular courts. The students themselves act respectively as counsel, jurors, witnesses, and officers of the court, thus learning by actual doing all the forms of court practice. The circuit moot court is composed of all the law faculty, which gives dignity to the court, and enables the members of the court the better to illustrate the legal principles involved and explain the rules of practice. The grammatical accuracy, rhetoric, elocution, and courtesy of deportment of students, also come under review of the professor, and the young men are thus fitted to appear and conduct themselves at the bar as gentlemen and scholars as well as lawyers. The system of moot courts is thorough.

There is a supreme court of appeals, composed of all three professors, the dean sitting as president of the court, to which all appeals from decrees, and writs of error to judgments rendered in the circuit court, may be taken. The system works admirably, and gives the student the practice in all the courts, following his case from the circuit court where it is brought, to the supreme court of appeals, which determines finally all cases. Trials are occasionally held in Commencement Hall, and are open to the public.

V. THE COLLEGE OF MEDICINE.

THE FACULTY.

At Morgantown.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President.

JOHN NATHAN SIMPSON, A. B., M. D., Professor of Anatomy and Physiology and Head of the Medical Faculty.

ALEXANDER REID WHITEHILL, Ph. D., Professor of Chemistry.

JOHN BLACK JOHNSTON, Ph. D., Professor of Zoology.

JOHN LEWIS SHELDON, Ph. D., Professor of Bacteriology.

JUSTIN FRANK GRANT, Ph. B., M. D., Associate Professor of Anatomy.

FREDERICK LAWRENCE KORTRIGHT, D. Sc., Associate Professor of Chemistry.

ARTHUR LEE POST, A. M., Instructor in Bacteriology and Anatomy.

EDWIN MAXEY, D. C. L., LL. D., Associate Professor of Law.

In Baltimore, College of Physicians and Surgeons.

THOMAS OPIE, M. D., Emeritus Professor of Gynecology.

CHARLES F. BEVAN, M. D., Professor of the Principles and Practice of Surgery.

WILLIAM SIMON, Ph. D., M. D., Professor of Chemistry.

J. W. CHAMBERS, M. D., Professor of Surgical Anatomy, Operative and Clinical Surgery.

GEORGE J. PRESTON, A. B., M. D., Professor of Physiology and Nervous Diseases.

N. C. KIERLE, A. M., M. D., Professor of Medical Jurisprudence and Director of Pasteur Institute.

WILLIAM F. LOCKWOOD, M. D., Professor of Materia Medica, Therapeutics, and Clinical Medicine.

ISAAC R. TRIMBLE, M. D., Professor of Anatomy and Clinical Surgery.

GEORGE W. DOBBIN, A. B., M. D., Professor of Obstetrics.

WILLIAM ROYAL STOKES, M. D., Professor of Bacteriology and Pathology.

HARRY FRIEDENWALD, A. B., M. D., Professor of Ophthalmology and Otology.

WILLIAM S. GARDNER, M. D., Professor of Gynecology.

EDWARD BRUSH, M. D., Professor of Psychiatry.

C. HAMPTON JONES, M. B. C. M., M. D., Professor of Hygiene, Public Health, and Clinical Medicine.

JULIUS FRIEDENWALD, A. M., M. D., Clinical Professor of Diseases of the Stomach.

FRANK DYER SANGER, M. D., Clinical Professor of Diseases of Nose, Throat, and Cheek.

STANDISH McCLEARY, M. D., Associate Professor of Histology and Pathology.

CHARLES E. BECK, Ph. D., M. D., Associate Professor of Obstetrics.

JOHN RUHRAH, M. D., Clinical Professor of Diseases of Children.

H. H. HAYDEN, M. D., Associate Professor of Human and Comparative Anatomy.

CHARLES F. BLAKE, M. D., Associate Professor of Surgery.

SAMUEL J. FORT, M. D., Associate Professor of Pharmacology.

ALEXIUS McGLAMMAN, Ph. G., M. D., Associate Professor of Physiological Chemistry.

HARVEY G. BECK, Ph. G., M. D., Associate Professor of Clinical Medicine.

THOMAS R. BROWN, A. B., M. D., Associate Professor of Clinical Medicine.

J. HALL PLEASANTS, A. B., M. D., Associate Professor or Clinical Medicine.

CARY B. GUMBLE, A. B., M. D., Associate Professor of Clinical Medicine.

MELVIN ROSENTHAL, M. D., Associate Professor of Genito-Urinary Surgery.

ALBERTUS COTTON, M. D., Associate Professor of Osteopathic Surgery.

ARCHIBALD C. HARRISON, M. D., Associate Professor of Surgery and Demonstrator of Anatomy.

FRANK C. BRESSLER, M. D., Associate Professor of Surgery.

GLENN M. LITSINGER, M. D., Demonstrator of Obstetrics.

A. SAMUELS, Ph. G., M. D., Demonstrator of Chemistry and Gynecology.

W. W. REQUARDT, M. D., Demonstrator of Surgery.

C. W. MITCHELL, M. D., Demonstrator of Nose, Ear, and Chest.

JOHN MASON KNOX, Jr., A. B., M. D., Demonstrator of Physical Diagnosis.

L. K. HIRSCHBERG, A. B., M. D., Demonstrator of Bacteriology and Neurology.

C. W. G. ROHRER, M. D., Demonstrator of Pathology.

L. J. ROSENTHAL, M. D., Demonstrator Clinical Laboratory.

A. ULLMAN, M. D., Demonstrator Histology and Pathology.

C. STIFLER, M. D., Demonstrator Embryology and Comparative Anatomy.

FACILITIES FOR INSTRUCTION.

Experience has shown that a university which possesses laboratories well equipped for scientific work offers opportunities to medical students superior to those offered by a medical school separate from a university. It is also shown that the studies of the first two years of the medical course, which consist of non-technical science work, are pursued to much better advantage in the atmosphere of scientific research which prevails at a university. For these reasons the University offers the first two years of the medical course under such conditions that the student may take the technical courses and clinical work at some of the medical schools in large cities where the best hospital facilities are provided. For the first two years work, all the facilities of the laboratories of the University are open to medical students. This, together with the low cost of tuition and living, and the opportunities for general culture, places the student in the most desirable conditions for the study of medicine.

Under the anatomical law, there is supplied an abundance of material for dissection and no pains or expense is spared to secure the best material for the study of histology, embryology, bacteriology, pathology, etc. In the laboratories, each student has the use of a separate microscope and all the necessary apparatus and materials are placed in the hands of the student, so that he may learn their use for himself.

In the library there is a fairly large collection of the best medical text and reference books, which is constantly being increased. The libraries of the allied scientific departments contain the most important books and current publications.

THE COMBINED LITERARY AND MEDICAL COURSE.

This course is intended to give the student a thorough training in culture and science studies as a preparation for the study of medicine, and it is so arranged that the graduate can enter the third year of most of the higher grade medical colleges. This plan enables the student to secure the B. S. and M. D. degrees in six years. The whole trend of medical education in recent years has been toward the adoption of such a course as the most desirable in every way for the future practitioner.

Requirements for Admission.

The requirements for admission to this course are the same as for admission to the College of Arts and Sciences (see p. 48). It is strongly recommended that the student shall present for entrance two years of French or German, or two years of laboratory science (physics, chemistry, botany, zoology).

Course of Study.

The student will register as a candidate for the B. S. degree and will take as his major subject one of the sciences prescribed in the course.

He will pursue his course in accordance with the rules governing students in the College of Arts and Sciences. When he shall have completed the following course of study he will be granted the degree of Bachelor of Science and after he has successfully completed the prescribed medical course in an approved medical college he may have conferred upon him the degree of Doctor of Medicine from this University.

DISTRIBUTION OF WORK FOR THE B. S. AND M. D. DEGREES.

First Year.

	Fall	Winter	Spring
8:30	Zoology 1	Zoology 2	Zoology 3
9:30	German 1 or French 1	German 2 or French 2	German 3 or French 3
10:30	Rhetoric 10	Rhetoric 11	
11:30	Solid Geometry 7	Univ. Algebra 8	Plane Trigonometry 9

Second Year.

8:30	German 4 or elective	German 5 or elective	German 6 or elective
9:30	French 1 or elective	French 2 or elective	French 3 or elective
10:30	Zoology 6	Zoology 7	Zoology 8
11:30	French 4	French 5	French 6
1:30			Physics 4

(Either German 4, 5 and 6 or French 4, 5 and 6 are to be taken, not both).

Third Year.

8:30		Pharmacology 1	Pharmacology 2
9:30	Chemistry 1	Chemistry 2	Chemistry 3
10:30		Physiology 3	Physiology 4
11:30	Osteology	Anatomy Quiz.	Anatomy Quiz
1:30	Histology	Dissection	Dissection 6 weeks Neurology 6 weeks

Fourth Year.

8:30 9:30	Embryology or elective	Pathology 1	Pathology 2
10:30 11:30	Physiology 5 Biolog. Prin.	Chemistry 11	Chemistry 12
1:30	Bacteriology	Dissection and Quiz	Dissection and Quiz, 6w. Physical Diag., 6 weeks Medical Jurisprudence

THE FOUR YEAR MEDICAL COURSE.

This course is designed to meet the needs of those who can spend only four years on their medical course. Although students are earnestly advised to take the six year course, the shorter course is arranged to give the best possible training in the time at the student's command. By affiliation with the College of Physicians and Surgeons in Baltimore, the laboratory courses constituting the first two years of the medical course may be done in Morgantown and the clinical work of the third and fourth years will be done in Baltimore. Students go from their work in Morgantown to Baltimore without further examination.

The College of Physicians and Surgeons is one of the best equipped medical schools in the east, and numbers among its alumni some of the foremost practitioners of our state. The college is in

its thirty-fifth year. Its buildings are thoroughly adapted to all the requirements of a modern medical school. Its clinics are very large and varied and its faculty includes some of the most prominent men in Baltimore.

Clinical facilities are furnished by the Baltimore City Hospital, the Hospital for the Colored Race, the Bay View Hospital (with two thousand beds), the Nursery and Child's Hospital, the Lying-in Hospital, and the City Hospital Dispensary, where 25,000 patients are treated annually. The College also conducts a Pasteur Institute for the treatment of hydrophobia.

Students who take the first two years work of the medical course in Morgantown will, upon completing the course receive their diploma from the College of Physicians and Surgeons, but the degree will also be conferred at Morgantown and the students will be considered alumni of West Virginia University.

The Woman's Medical College of Baltimore.

Arrangements upon the same terms as those above described have been made with the Woman's Medical College of Baltimore, so that women who take their first two years work in this University may complete the course in Baltimore.

Requirements for Admission.

Candidates for admission to this course must present either:

a. A bachelor's degree from an approved college or university.

b. A certificate from an accredited high school, normal school, or academy, which requires for graduation not less than four years of study, embracing the following subjects:

Foreign language (one year must be Latin)	6 courses
Mathematics (Algebra and Plane Geometry)	5 courses
English	6 courses
History	2 courses
Science (with laboratory)	
(Physics, chemistry, botany, zoology)	6 courses
Elective, in language,	
literature, history, or science	11 courses
Total,	36 courses.

c. A certificate of examination from a State Superintendent of Public instruction on the subjects prescribed by the Association of Medical Colleges.

These requirements are fully equivalent to those prescribed by the Association of American Medical Colleges of which this college is a member.

Entrance With Conditions.

Students who can not meet all the requirements for admission may enter as special students and pursue such work as they are fitted for, and at the same time finish the prescribed entrance work in the Preparatory School of the University. No student can be admitted to regular standing in the second year of the course until all requirements for admission have been fulfilled.

DISTRIBUTION OF WORK FOR FOUR YEAR MEDICAL STUDENTS.

First Year.

	Fall	Winter	Spring
8:30		Pharmacology 1	Pharmacology 2
9:30	Chemistry 1	Chemistry 2	Chemistry 3
10:30		Physiology 3	Physiology 4
11:30	Osteology	Anatomy Quiz	Anatomy Quiz
1:30	Histology	Dissection	Dissection, 6 weeks Neurology, 6 weeks

Second Year.

8:30 9:30	Embryology	Pathology 1	Pathology
10:30 11:30	Physiology 5	Physiological Chemistry 11	Physiological Chemistry 12
1:30 4:00	Bacteriology	Dissection	Dissection, 6 weeks Physical Diagnosis 6 weeks Medical Jurisprudence

Third Year, Given in Baltimore.

Surgery, Obstetrics, Gynecology, Medicine, Pediatrics, Therapeutics, Diseases of Nervous System, Diseases of Eye and Ear, of Stomach, Dermatology, Physical Diagnosis, Genito-Urinary Surgery, Surgical Anatomy, Diseases of Nose and Throat, Diseases of Blood and Urine.

Fourth Year, Given in Baltimore.

Surgery, Orthopedic Surgery, Operative Surgery, Rectal Surgery, Medicine, Obstetrics, Gynecology, Hygiene, Mental Diseases, Genito-Urinary Surgery, Pediatrics, Nose and Throat, Diseases of Nervous System, Diseases of Stomach, Eye, and Ear.

FEES.

A fee of five dollars will be deposited by each student taking a course in gross anatomy to cover possible loss of materials loaned to students for study at their rooms. Whatever remains of the fee will be returned at the close of the year.

The following fees are charged to cover cost of materials used.

$1.00 per course in Histology.
$3.00 per course in Bacteriology.
$5.00 for each part dissected in Anatomy.
$3.00 per course in Embryology.
$3.00 per course in Pathology.
$2.00 per quarter in General Chemistry.
$10.00 per quarter in Medical Organic Chemistry

DEPARTMENTS OF INSTRUCTION.

For the announcement of the full course in Medicine students are referred to the catalogue of College of Physicians and Surgeons of Baltimore. The following is the announcement of work offered in Morgantown.

ANATOMY.

Dr. Grant.

1. Osteology. Study of bones and joints. Lectures, demonstrations, and quizzes. Fall 1 W.

2. Dissection. Careful dissection of the body with reference to nerves, blood vessels, and muscles. The cadaver is divided into three parts, each student dissecting an arm, a leg, including the abdominal viscera, and the head, including the thoracic viscera. For each part a fee of five dollars is charged.
Winter, Anatomical Laboratory.

3. Dissection. Continuation of course 2.
Spring, Anatomical Laboratory.

4. Normal Histology. Microscopic study of the tissues and organs, human and animal. Fall, 1 W.

5. Dissection and Quizzes. Continuation of course 3.
Winter, 1:30—4:00 P. M.; Anatomical Laboratory.

6. Dissection and Quizzes. Continuation of course 5.
Winter, 1:30—4:00 P. M.; Anatomical Laboratory.

PHYSIOLOGY.

Dr. Simpson.

1. Elementary Physiology. Cells, tissues, and organs of the human body and their functions, using the microscope freely; practical demonstrations in digestion, etc. Text-book, Martin's Human Body, briefer course. For preparatory students.

Fall, 10:30; Winter, 9:30; 1 W.

2. Elementary Physiology. Continuation of course 1. With demonstration on animals. Martin's Human Body, completed.

Winter, 8:30; 1 W.

3. Advanced Physiology. Muscle, nerve, circulation, blood, and blood pressure. Lectures, demonstrations, and quizzes. For medical students. Winter, 10:30; 1 W.

4. Advanced Physiology. Continuation of course 3; respiration, foods, chemistry of blood, digestion, secretions, and excretions. Text-book, Howell. Spring, 10:30; 1 W.

5. Advanced Physiology. Continuation of course 4; functions of the central nervous system and special senses. Fall, 9:30; 1 W.

EMBRYOLOGY AND COMPARATIVE ANATOMY.

Professor Johnston.

The courses are more fully described in the announcement of Zoology in the College of Arts and Sciences.

1, 2 and 3. General Zoology. Prescribed for six-year students; optional preparatory subject for four-year students. Lectures, two hours per week; laboratory, six hours per week.

Fall, Winter, and Spring, Monday and Wednesday, 10:30; 17 W.

6, 7 and 8. Vertebrate Morphology. Deals with the comparative embryology and anatomy of vertebrate animals, including human embryology. Prescribed for six-year students. Four courses credit for the year. Lectures, two hours per week; laboratory, twelve hours per week.

Fall, Winter, Spring, Tuesday and Thursday, 11:30; 17 W.

9. Methods in Embryology, Histology, and Neurology. The technique of preserving and preparing material for study, together with wax-plate reconstruction and other methods of study in embryology and neurology. Credit in proportion to work done.

Hours to be arranged; 17 W.

[illegible] Neurology. A half course during the second six weeks of the spring quarter, dealing with the chief facts in the anatomy of the human and mammalian brain and sense organs. Prescribed for

all students . Lectures, two hours per week; laboratory twelve hours work per week. Spring, 1:30—4:30; 17 W.

For optional courses in neurology see the announcement of Zoology in the college of Arts and Science.

16. Human Embryology. A short course prescribed for four-year medical students and not open to other students. Laboratory work on the development of the pig, with demonstrations of preparations of human embryos. Prerequisite, after 1906, courses 2 and 3 in general zoology. Text-book, McMurrich. Lectures, two hours per week; laboratory, eight hours work per week.

Fall, 10:30—12:30; 17 W.

CHEMISTRY.

Professor Whitehill and Associate Professor Kortright.

1. Inorganic Chemistry. This course is designed for beginners and serves as a general introduction to chemical methods and operations. It includes a systematic study of the laws of chemical combinations, the source, preparation, properties and compounds of the non-metallic elements, and the principles and theories of chemical philosophy. Experimental lectures, laboratory work, and recitations.

Fall, first section, 9:30; second section, 11:30; Spring, 10:30; Professor Whitehill, 20 S.

2. Inorganic Chemistry. This course includes the study of the metallic elements and special attention is paid to the application of chemistry in agriculture, engineering, medicine, and every-day life.

Winter first section, 9:30; second section, 11:30; Fall, 10:30; Professor Whitehill, 20 S.

3. Organic Chemistry. This course includes the study of the more important organic compounds, together with the laboratory processes for the preparation of such compounds. Lectures, laboratory work, and recitations.

Spring, first section, 9:30; second section, 11:30; Professor Whitehill, 20 S.

11. Medical Organic Chemistry. A lecture and laboratory course in special subjects of organic chemistry, as carbohydrates, fats, proteids, and foods in general.

Winter, 10:30 to 12:30; Professor Kortright, 21 S.

12. Medical Analysis. The study and practice of the analytical methods used in modern medicine.

Spring, 10:30 to 12:30; Professor Kortright, 21 S.

PHARMACOLOGY.

Dr. Simpson.

1. **Origin and Use of Drugs.** Their preparation and dosage. Winter, 8:30; 1 W.

2. **Study of the Action of Drugs on Lower Animals.** Lectures and quizzes. Spring, 8:30; 1 W.

BACTERIOLOGY.

Mr. Post.

See announcement in the College of Arts and Sciences under Departments of Instruction.

PATHOLOGICAL ANATOMY.

Dr. Grant.

1. **Microscopic Study of Diseased Tissues and New Growths.** Winter, 8:30; 1 W.

2. **Continuation of Course 1.** Spring, 8:30; 1 W.

3. **Physical Diagnosis.** Six weeks. Spring, 1:30—4:00 P. M.; 1 W.

MEDICAL JURISPRUDENCE.

A course of study covering the medico-legal aspect of medicine. Spring, hours to be arranged; Dr. Maxey.

TEXT BOOKS.

Anatomy, Gray or Morris.
Histology, Piersol or Boehm-Davidhoff-Huber.
Embryology, McMurrich.
Physiology, Howell.
Chemistry, Remsen.
Bacteriology, Muir and Ritchie, Frost.
Pathology, Delafield and Prudden, McFarland, Green-Bosquet.
Pharmacology, Sollman, H. C. Wood.
Physiological Chemistry, Simon.

VI. THE COLLEGE OF VETERINARY SCIENCE.

THE FACULTY.

At Morgantown.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President.

JAMES A. WAUGH, V. S., Dean and Instructor in Veterinary Science.

ALEXANDER REID WHITEHILL, A. M., Ph. D., Professor of Chemistry.

THOMAS CLARK ATKESON, M. S., Ph. D., Professor of Agriculture.

JOHN LEWIS SHELDON, A. M., Ph. D., Professor of Bacteriology.

JOHN NATHAN SIMPSON, A. B., M. D., Professor of Anatomy and Physiology.

JUSTIN FRANK GRANT, Ph. B., M. D., Assistant Professor of Anatomy.

WALTER KIRK BRAINERD, B. S., Instructor in Dairying.

THOMAS CARSKADON JOHNSON, B. S. Agr., A. M., Instructor in Botany.

At Pittsburg.

CLAUDE E. STOCKTON, M. D. C., Professor of Anatomy and Histology.

CHARLES Z. LABERGE, D. V. M., Professor of Materia Medica and Therapeutics.

A. W. AINSWORTH, D. V. M., Professor of Sanitary Science and Meat Inspection.

E. LETEVE, M. D., Professor of Microscopy and Instructor in Serum Therapeutics and Prophylaxes.

The adjunct faculty will include a number of veterinary demonstrators.

OBJECT.

The objects of the college are:

1. To educate and qualify students for the practice of veterinary medicine and surgery.

2. To afford the special training necessary to qualify graduates for military and federal positions and for general practice.

3. To provide opportunity for agricultural students and veterinary practitioners to pursue special courses.

Veterinary students may avail themselves of the advantages of the other departments of the University whenever time permits.

LOCATION.

The first year's course is given in the University at Morgantown, during the winter and spring terms. By special arrangement, students are enabled to take the fall course at the college in Pittsburg, Pa.

The second and third year courses and the special practitioners' courses are given at Pittsburg, Pa., where excellent clinical facilities are provided. By special arrangements, students can take the spring term in the University at Morgantown, thus enabling those students who desire it to take a full nine months course each year.

EXPENSES.

Fees at Morgantown. See page 31.

Fees at Pittsburg. For regular second year and third year courses, $75.00 each; for diploma, $5.00; for practitioners' special course in advanced therapeutics, practice of medicine and surgery, $30.00.

Board and Rooms. Suitable board and rooms may be obtained in Morgantown or Pittsburg at rates varying from $3.50 to $5.00 per week.

STUDENTS' SOCIETY.

A Students' Society is maintained, and meetings are held weekly for the reading of papers and reports and the discussion of interesting cases observed in practice.

REQUIREMENTS FOR ADMISSION.

Candidates having a college degree, a teacher's certificate, a diploma from a high school, or having passed the matriculation examination of a medical, veterinary, or dental college, or college of pharmacy, are admitted without examination.

Other candidates are required to write legibly a short essay in English and pass a satisfactory examination in arithmetic and United States history. Those found deficient in any studies will be given opportunity to correct such deficiences in the preparatory school of the University. Graduates from reputable medical and veterinary colleges will be admitted to the senior class. Graduates from agricultural and other colleges will be given credit for studies and time.

REQUIREMENTS FOR GRADUATION.

Candidates for graduation must be of good moral character, and are required to have attended three regular courses of lectures in reputable medical or veterinary colleges, the last of which must have been in this college. In order to graduate, candidates must have paid all dues in full, and have been diligent in attending the lectures and clinics, and must have passed satisfactory examinations in all subjects taught in the college.

CURRICULUM.

This is arranged to cover a period of three years of six to nine months each and is so arranged that it gives students the advantage of obtaining a broad foundation in the fundamental sciences. The method of instruction is by text-books, recitations, quizzes, illustrated lectures, and systematic work in the laboratories, hospital, and stockyards.

DESCRIPTION OF THE COURSE OF STUDY.

1. Anatomy. This important subject is taught by means of text-books, quizzes, demonstrations, and dissections. Ample dissecting material is furnished free. The anatomy of the horse is the subject of special study, and the structural differences of other domesticated animals are carefully considered and described in detail. Comparative anatomy is studied to give students a correct knowledge of the anatomy of flesh-food producing animals. Five hours recitation and five hours dissection each week are required of first and second year students.

2. Regional Dissection and Surgical Anatomy. Third year students will devote two hours a week to regional dissection, relating to surgical anatomy.

3. Elementary Botany. This is a laboratory course, with the use of dissecting and compound microscopes. It includes a study of the structure, function, and classification of plants. A text-book is used for a general guide. Students are encouraged to acquire a

knowledge of forage and toxic plants. One hour a week required of first year students.

4. Bacteriology. A practical laboratory course, supplemented by studies and recitations. Each student becomes familiar with the methods of sterilization and disinfection, the preparation and use of culture media, the morphology and life history of the more important non-pathogenic and pathogenic bacteria, and the bacterial analysis of air, soil, water, and milk. One and two hours a week for first and second year students respectively.

5. Chemistry. General chemistry is given two hours a week for first year students; physiological chemistry, two hours a week for second year students; veterinary medical chemistry, two hours a week for third year students.

6. Histology. The course in normal histology includes text-book work and microscopic study of the various tissues and organs. Facilities are afforded to make this an interesting study, and prepared specimens will become the property of students. One hour a week for second year students.

7. Physiology. The subject is illustrated by means of charts, drawings, and blackboard figures and the student becomes familiar with the phenomena of the most important bodily functions in normal operations by experiments upon living animals. One hour a week for first year and two hours a week for second and third year students.

8. Materia Medica, Therapeutics and Pharmacy. The lectures on this subject are illustrated by an exhibition of the principal drugs used in veterinary medicine, their action, character, uses, doses prescribed, and the manner of preparing, preserving, and administering them. Toxins and anti-toxins and diagnostic agents will be fully described and their utility demonstrated in actual practice.

9. Dairy Bacteriology. This course consists of a study of bacteria as they affect the dairyman, including contamination of milk, fermentation in milk, disease germs transmissible to man through milk, and preservation of milk for commercial purposes. One hour a week for third year students.

10. Principles and Practice of Veterinary Medicine. This course considers the diseases of domesticated animals and whenever possible demonstration upon the subject itself, in the hospital, in outside practice, or at the live-stock yards. The special clinics and the hospital provide ample facilities to train students in physical diagnosis and applied therapeutics.

11. Principles and Practice of Surgery. This course includes the important subjects of modern surgery, quizzes, clinical instruction, and a thorough illustration of operations upon the cadaver,

supplemented by practical work in general practice. One hour a week for first year students, three hours a week for second year students and four hours a week for third year students.

12. Obstetrics. The text-book study and recitations in this course include a careful consideration and discussion of the diseases, disorders, and derangements incident to pregnancy and parturition in domesticated animals. Operations will be demonstrated in actual practice in connection with the college. Two hours a week for third year students.

13. Milk Inspection. Testing Dairy Products. This course includes a study of the composition of milk, tests for butter fat, tests for preservatives in milk, application of lactometer, calculating butter and cheese yields, and butter analysis. One hour a week during last half of second year.

14. Meat Inspection. This important subject is taught by text-book study, quizzes, and demonstrations in the live-stock yards and abattoirs, and every effort will be made to qualify students for official positions in the public service. Two hours a week for third year students.

15. Pathology. The course in pathology ,includes the text-book study and demonstrations of microscopic study in diseased tissue and new growths, supplemented by practical work with a view to the actual needs of the practicing veterinarian. Post mortems will be held on animals dying in the hospital and condemned carcasses at the abattoirs and dessicating establishments will be used to demonstrate the visible lesions in gross pathology. One hour a week for second and third year students.

16. Microscopy. This course includes text-book study and laboratory work in bacteriology, histology, and pathology. A special laboratory is provided with suitable tables and latest improved microscopes, stands, and objectives, together with microtomes, injecting and sterilizing apparatus, and all necessary accessories and reagents. One hour a week for third year students.

17. Veterinary Dentistry. This subject in all its relations is included in the course in operative surgery and is fully demonstrated in actual practice.

18. Principles of Breeding. Studies and recitations. What is meant by breeding, how to attain the ideal, heredity, atavism, variation, selection, correlation, in-and-in breeding, cross breeding and grading, influence of climate and environment upon habits and development.

19. History and Characteristics of Breeds. This course deals with the improved breeds of horses, cattle, sheep, and swine. A

study of origin, development, distribution and characteristics of each breed is made.

20. Feeds and Feeding. Study and recitations. Laws of animal nutrition, composition and digestibility of feeding stuffs, feeding farm animals, feeding for milk, muscles, and fat, sources of food, how the animals use food, preparation of food, influence of food on animal form, study of rations and feeding standards.

21. Sanitary Science. This important course includes text-book study, recitations, observations on the care and management of animals, ventilation and drainage of barns and stables, inspection of dairies and stockyards for the control and eradication of contagious and infectious diseases. One hour a week for third year students.

22. Horse Shoeing. The principles and practice of horse shoeing are taught by text-book study. Normal and pathological horse shoeing are demonstrated in practice.

23. Veterinary Jurisprudence. The laws governing veterinary practice and those relating to the veterinarian and his patrons are fully described by lectures. Ethics and business methods will be taught in daily practice.

TEXT-BOOKS.

Anatomy—Strangeways.
Chemistry—Hill.
Surgery—Moller, Liautard, Wyman.
Operative Surgery—Fleming, W. L. Williams.
Bacteriology—H. W. Williams.
Histology—Gottheil, Bailey.
Physiology—R. Meade Smith, Paton.
Materia Medica—Winslow, Quitman, Muir.
Prescription Writing—Fish, Hanson.
Principles and Practice of Veterinary Medicine—Freidberger & Frohner, Law.
Clinical Medicine and Surgery—Dollar.
Milk Inspection—Peters, Farrington & Woll.
Meat Inspection—Walley, Peters, Ostertagg.
Pathology—Kitt, Greene.
Post Mortems—Clement.
Breeds and Breeding—Craig.
Feeds and Feeding—Henry, Jordan.
Sanitary Science—Law, Moore.
Horse Shoeing—Adams.
Castration—Liautard, Hobday.

Canine and Feline Medicine and Surgery—Glass, Hobday, Hill.
Sheep—Rushworth.
Swine—Craig.
Cattle, Sheep, Swine and Goats—Dollar.
Physical Diagnosis—Malkmus.
Dictionaries—Dorland, Gould, Keating.
U. S. Government Reports.

Students having other books need not purchase new ones until they enter college.

VII. THE SCHOOL OF ORATORY.

THE FACULTY.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President and Professor of Psychology and Ethics.

C. EDMUND NEIL, A. B., Associate Professor of Oratory and Elocution and Director of Debating Teams.

POWELL BENTON REYNOLDS, A. M., D. D., Professor of Sociology.

ROBERT ALLEN ARMSTRONG, A. M., Professor of English Language and Literature.

FREDERICK WILSON TRUSCOTT, A. M., Ph. D., Professor of Germanic Languages and Literatures.

ANDRE BEZIAT DE BORDES, Ph. D., Professor of Romance Languages and Literatures.

ANTHONY WENCEL CHEZ, Teacher of Physical Training

LOUISE FERRIS CHEZ, Assistant in Physical Training.

OPPORTUNITIES OF THE SCHOOL.

The School of Oratory established as an integral part of the University offers and requires a breadth of culture indispensable in public reading and speaking. It gives to its students all the opportunities of the various courses of study, laboratories, libraries, and other equipment of the University. Class instruction is free to residents of the state, and private lessons are given to all students at a reasonable rate. A minimum tuition fee will be charged to non-residents of the state.

OBJECT.

The School of Oratory was organized to meet the needs of those whose profession will be any form of public speaking or reading, and of those who wish to become teachers of oratory and elocution. It aims also to give instruction and practice in the various forms of public speaking to all students of the University.

DEGREE.

Students who satisfactorily complete the course of study prescribed will be given the degree of Bachelor of Oratory. Those receiving this degree may, by pursuing the proper line of University work for a single additional year, receive the degree of Bachelor of Arts.

ENTRANCE REQUIREMENTS.

All students entering the regular three years' course for the degree of Bachelor of Oratory should have completed the thirty-six courses of the Preparatory School required for entrance upon the course for the degree of Bachelor of Arts or their equivalent in some recognized high school, normal, or other preparatory institution.

DEPARTMENTS OF INSTRUCTION.

CLASS WORK IN ORATORY AND ELOCUTION.

1. Principles of Elocution. A study of vocal organs and muscles; methods of breathing, vocal culture for purity, strength, compass, flexibility and sustaining power. Study and application of vocal elements; form, degree, stress, quality. First principles of action. Fall, 2:00; Winter, 3:00; Professor Neil, 14 M.

2. Principles of Elocution. Vocal culture continued. Study and drill in the vocal elements; pitch, degree, change, melody, time, quantity, pause, movement. Completion of principles of action. Analysis, preparation and rendition of selections. Criticism of application of elements. Spring, Winter, 2:00; Professor Neil, 14 M.

3. Literary Analysis and Rendition. Development of individuality in voice and action. Lectures on analysis, mind concentration, memory, scene building and interpretation. Individual study of selections from every style. Rendition of prescribed selections and criticism by members of class and instructor. Spring, 8:30; Professor Neil, 14 M.

4. History of Oratory. A philosophical survey of the origin and the history of the oration. A study of the leading orators of the various periods. Analysis by each student of the noted speeches of different times and countries. Class reviews of the style, diction, depth, clearness, climax, and persuasive power of the orators studied. Fall, 3:00; Professor Neil, 14 M.

5. Original Orations. Lectures on styles of address, kinds of discourse, construction of speeches, ancient, mediaeval and modern

oratory, and the sources of eloquence. Preparation and delivery of topical speeches and original orations.

Winter, 9:30; Professor Neil, 14 M.

6. Argumentation and Debate. Lectures on extempore speaking, principles of debate, preparation of briefs, arrangement of argument, team work and rebuttal. Extempore speeches and debates required of every student. Fall, 10:30; Professor Neil, 14 M.

7. Advanced Argumentation and Debate. Continuation of course 6. The object of this course is to give the student a mastery over the perplexing technicalities of argumentative laws, to develop a clear, direct, forceful, and persuasive style of speaking, and to perfect the art of team debating.

Winter, 10:30; Professor Neil, 14 M.

8. English Classics. Lectures on Shakespeare, Dickens, Browning, Tennyson and others. Study. interpretation, and memoriter rendition of one of Shakespeare's plays. Interpretative analysis of one other play and of selections from other English masters.

Spring, 10:30; Professor Neil, 14 M.

9. Vocal and Literary Interpretation of the Bible. The purpose of this course is to teach the students to interpret the Bible as other forms of literature, bringing its scenes, its character, its actual life before the audience. Spring; Professor Neil, 14 M.

PRIVATE WORK IN ORATORY AND ELOCUTION.

All students making a major study of oratory and elocution will be required to pursue private work continuously. Candidates for the degree of Bachelor of Oratory will be required to take at least nine courses of private work under the direction of Professor Neil.

ENGLISH LANGUAGE AND LITERATURE.

Two years, six courses, are required of all candidates for the degree of Bachelor of Oratory. Professor Armstrong, L.

PSYCHOLOGY AND ETHICS.

One course in psychology and one course in ethics are prescribed for candidates for the degree of Bachelor of Oratory.

Dr. Purinton, 10 S.

SOCIOLOGY.

Historical, analytical and practical sociology are offered. Three courses are recommended. One course is prescribed.

Professor Reynolds, 12 S.

GERMAN LANGUAGE AND LITERATURE.

An exhaustive course is offered. Two years, six courses, are required of candidates for the degree of Bachelor of Oratory.

Professor Truscott, 18 W.

FRENCH LANGUAGE AND LITERATURE.

An exhaustive course is offered. One year, three courses, is required. Professor Béziat de Bordes, 11 W.

PHYSICAL CULTURE.

Physical culture is recommended during the entire course. Two years, six college courses, are required. Director Chez.

SUMMARY OF PRESCRIBED WORK.

	Number of courses
Class work in oratory and elocution,	9
Private work in oratory and elocution,	9
English Language and Literature	6
German Language and Literature,	3
French Language and Literature,	3
Psychology,	1
Ethics,	1
Sociology,	1
Total number of required courses,	36

TIME REQUIRED.

It will require three years to complete the course of study prescribed.

TUITION FOR PRIVATE LESSONS.

Single lessons,	$ 2.50
Per College term, 1 per week,	20.00
Per College term, 2 per week,	35.00
Per College term, 3 per week,	50.00

All lessons are one hour in length.

VIII. THE SCHOOL OF MUSIC.

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.

ROSS SPENCE, Director, Teacher of Violin, Musical History, and Mandolin. Director of Glee and Mandolin Clubs.

ALEXANDER STEWART THOMPSON, Senior Teacher in the Vocal Department.

RUDOLF WERTIME, Senior Teacher in the Piano Department.

GRACE MARTIN SNEE, Instructor on the Piano and Pipe Organ.

SUSAN MAXWELL MOORE, Instructor in the Piano Department.

MABEL CONSTANCE FOSTER, Instructor on the Piano and in Harmony.

SUSAN SOPHRONIA BROOKE, Instructor in the Vocal Department.

WALTER A. MESTREZAT, Assistant on Wind Instruments.

BERTHA JANE SMITH, Assistant in the Piano Department.

ELIZABETH CLAYTON, Assistant in the Piano Department.

ORIGIN AND PURPOSE.

The School of Music was established in 1897 as one of the component schools of the University. It stands for high ideals and strives by means of thorough training to develop to the highest stage of artistic capability all those possessing true musical talent.

SPECIAL ADVANTAGES.

There are many advantages to a student in a school of music connected with a University. Opportunities are afforded for studying in the various other departments, thus securing to the music student a symmetrical education, literary and scientific, as well as musical. On the other hand, the existence of a school of music affords advantages in musical training to the students in all the other departments.

Instruction is furnished free of charge in a number of branches, while in others, the tuition fees are merely nominal. The exceptionally low tuition rates which prevail here are made possible by means of state aid.

BUILDING AND EQUIPMENT.

The school now occupies the entire upper floor of Woodburn Hall, which contains well appointed rooms, supplied with Knabe pianos and other accessories. A new Recital Hall, seating 400 people, has been provided for lectures and students' recitals.

Commencement Hall, seating 1,500 people, contains a magnificent three-manual pipe organ—tubular pneumatic—built upon the universal wind-chest system, and containing 76 stops and mechanical accessories. This organ, which receives power from an electric motor, is available for practice.

CONCERTS AND RECITALS.

CHORAL SOCIETY SERIES.

A series of concerts called the Choral Society Series is given during the year, in which the Choral Society at times takes part. The closing concert of this series is given by the faculty at commencement. Students are expected to attend them as part of their instruction. Some of the leading artists of the country are engaged for these concerts; among those who have appeared in the past seasons are Mr. Max Heinrich, Mrs. Jenny Osborne Hannah, Mr. Frank Hannah, Mr. Anton Kaspar, Mr. John Porter Lawrence, Mr. William Sherwood, Mr. Richard Strauss, Mme. Strauss de Ahne, Victor Herbert, Alberto Jonas, Genevra Johnstone Bishop, Glenn Hall, E. Normanton Bilbie, and the Pittsburg Orchestra.

STUDENTS' RECITALS.

These recitals have been established as a means of developing confidence in the student. Some are open to the public, others to the intimate friends of the participants only. They are held on the average of once each week during the year.

THE CHORAL SOCIETY AND GLEE CLUB.

The Choral Society, under the direction of Mr. A. S. Thompson, has about one hundred members. All students of the University who can sing are admitted to the Choral Society upon payment of fifty cents, the membership fee. For those who are not students the fee is $1.00. These dues admit the members to all concerts of the Choral Society Series.

Members of the Glee Club are chosen by the Director, Mr. Spence.

CREDIT FOR MUSIC ON COLLEGE COURSES.

Credit towards the degree of Bachelor of Arts will be given for courses in the science and history of music, not to exceed five in number.

DEPARTMENTS OF INSTRUCTION.

Strict adherence to a fixed list of studies is not required. The needs of the individual student are considered and the studies varied accordingly. New works are carefully examined by the musical directors and those of value are adopted. An idea of the work covered in the different classes may be obtained from the following:

VOCAL DEPARTMENT.

No student can be classified in the collegiate course in voice without passing examination in solfeggio, or demonstrating to the satisfaction of the head of the department the ability to read music of moderate difficulty, and giving evidence of the mastery of the elements of music. Concone's Fifty or Forty Lessons and Vaccai's Studies (when English is used) are among the preparatory studies.

First Year.

Voice Placing Exercises. Scales, sustained tones, and articulation exercises; Marchesi's Studies; Concone's Twenty-five Lessons; songs by American composers, Denza, Cowen, Gastaldon, Jensen, Grieg, and Mendelssohn.

Second Year.

Voice Placing Exercises. Scales, etc.; Marchesi's Studies; Concone's Fifteen Lessons; songs or solos by Schubert, Schumann, Grieg, Haendel, or other good foreign and American composers.

Third Year.

Voice Placing Exercises. Marchesi's, and Bordogni's exercises; solos from the standard oratorios and operas, Sullivan, Mendelssohn, Haendel, Mozart, and some of the Italian composers.

A Teacher's Certificate will be granted to those who complete the above three years' work, together with one year of harmony, and one year each of French, German, and Italian.

Fourth Year.

Haendelian Arias review, Beethoven songs, Wolf, Strauss, Brahms, and Franz songs, Wagnerian and other opera solos.

An Artist's Diploma will be granted to those who complete this

course and who have passed all the requirements for a Teacher's Certificate. Artistic finish and quality of performance are deciding factors in the awarding of this diploma and all candidates for it are required to give a graduating vocal recital.

PIANO DEPARTMENT.

Teachers' Certificate.

Students must have studied from the following masters: Bach, Haendel, Haydn, Mozart, Beethoven, Schubert, Weber, Mendelssohn, Schumann, Chopin, Henselt, Liszt, Rubinstein, Brahms, Greig, Saint-Saens, Moszkowski.

They must (a) pass an examination in harmony and history of music; (b) take a course in ensemble music in order to become familiar with the orchestral works of the masters and become good sight readers; (c) play a sonata for the Director of the School at final examinations.

This course will require three years.

Artists' Graduating Diploma.

The diploma of the artists' graduating class is given only to pupils who have attained such a degree of knowledge and technical skill as to enable them to play piano concertos and other brilliant compositions with the finish expected of artists.

Students must have studied from the following masters: Bach, Haendel, Haydn, Mozart, Beethoven, Schubert, Weber, Mendelssohn, Schumann, Chopin, Henselt, Liszt, Rubinstein, Bramhs, Grieg, Saint-Saens, Moszkowski.

They must (a) pass an examination in harmony, history of music and counterpoint; (b) take a course in ensemble music in order to become familiar with the orchestral works of the masters and become good sight readers; (c) play a program or concerto at graduation.

This course will require four years.

VIOLIN DEPARTMENT.

Teachers' Certificate.

Violin Schools by David, Spohr, Sevcik; elementary studies and exercises by Wohlfahrt, Dancla, Hermann, Kayser; Etudes by Mazas, Kreutzer, Fiorillo, Rode; selections from De Beriot, Wieniawski, Viotti, Rode, etc.; harmony.

This course will require three years.

Artists' Graduating Diploma.

Bach sonatas; Concertos by Mendelssohn, Molique, Spohr, Kreutzer, Beethoven, Bruch, etc; harmony; musical history; knowledge of piano. This course will require four years.

PREPARATORY VOCAL DEPARTMENT.

The work in this department consists of combined private and class lessons. It is presided over by Mr. Alexander Thompson. The beginners' classes have two sessions a week. The tuition is $7.50 a quarter in classes of four to ten scholars.

Outline of Study.

I. Classification of the child voice; the child's point of view, first exercises in voicing; forming correct habits.

II. Gentle use of the voice; the sense of tone.

III. Selection of rote songs; importance of pitch and compass.

Grammar Grades and High Schools.

I. Position; art of breathing; economy of breath.

II. Tone-production; simple intervals, syllables, numbers.

III. First steps in reading; notations; exercises in monotones seconds, thirds, fourths, fifths, etc.

IV. The major scale; its character; steps and half steps; tone relation; exercises in one and two parts.

V. Time-signatures; rhythm; beating time; time exercises.

VI. Resting and preserving the voice; shading; making voices mellow; beauty of tone.

VII. The singing tone; singing at sight.

VIII. The use of signatures and accidentals.

IX. Scales and their signatures; the major and minor modes; chromatic forms.

X. Modulation of key; transposition of scale; the relative major and minor keys.

XI. Writing and singing of simple first chords; basis of reading; writing in musical diction.

XII. Musical characters indicating rate, force, style, and expression.

Classes are arranged separately for pupils whose ages range from 5 to 7 years, 8 to 10 years, 11 to 13 years, 14 to 16 years. All over those years will be formed into an advanced class.

PREPARATORY PIANO DEPARTMENT

The best time to begin the study of music is between the ages of seven and ten years and the proper instrument for the first years of musical instruction is the piano, with its fixed scale and easily formed tones. Kindergarten methods should be avoided before beginning regular piano lessons. When the study of music is once begun, it should be taken up in earnest, as a part of the child's education, and not as a pastime; otherwise, the results being superficial, the child's enthusiasm will soon disappear, because of its inability to accomplish anything of value, either as a means of amusment or of culture. Children should be taught in a well conducted music school, and not at home or in a private studio, just as they should be taught in a good primary school and not by a governess or private tutor. In such a school, the children come in contact with other pupils of their own age, and having an opportunity to measure their own progress with that of others, they are not likely to become indifferent and apathetic.

The School of Music offers a well organized preparatory department, presided over by Miss Susan M. Moore, of The Faelton Pianoforte School, Boston, Mass. The beginners' class has two sessions a week, one on Saturday morning, and one on Wednesday afternoon, after school hours. The tuition is $7.50 a quarter in classes of four scholars. Pupils generally remain in this course for two years, at the end of which time, it becomes necessary to give them more individual attention.

The effects of this thorough training, besides being immediately apparent, are of inestimable value to those pupils who are fortunate enough to be able to take an extended course in music, for their teachers, being free to devote all their attention to those matters which belong to the advanced part of a course of study, have little difficulty in enabling them to become independent musicians.

Children in this department are taught sight-reading, transposition, and ensemble playing. They are required to do black board exercises and have a thorough course in ear training.

ORGAN AND CONDUCTING.

The organ course is intended to provide a thorough and complete education in the work of a church organist and accompanist. Students are required to take some studies on the piano and in musical theory, harmony, and simple counterpoint, before entering the organ school.

HARMONY, COUNTERPOINT, THEORY, MUSICAL HISTORY, SIGHT READING, AND EAR TRAINING.

These are considered among the most important subjects of the School of Music, as they are essential to an intelligent interpretation of music. Students are required to take at least three of these studies before graduating.

ENSEMBLE PLAYING.

It is necessary that a pianist should learn to accompany and also to be able to play in concert with other instruments. Special opportunities are offered the more advanced students to receive the necessary instruction.

MODERN LANGUAGES.

The close relation of the modern languages with music, and especially with vocal music, makes them important in every course of musical study. The inexhaustible and ever-increasing treasures of vocal music composed in German, French, and Italian texts alone, make a fair knowledge and correct pronunciation of these languages indispensable. The University offers superior advantages for the study of French, German, Italian, and Spanish.

The management is frequently called upon to recommend music teachers, who are also prepared to teach modern languages, and such capability will give its possessor a decided advantage.

No contingent fees are charged music students on account of their taking conversational French, German, or Italian, as required for their diplomas in music.

RHETORIC AND ELOCUTION.

The English department of the University furnishes excellent opportunities for music students to fit themselves as teachers of rhetoric and elocution.

PUBLIC SCHOOL MUSIC.

Recognizing the demand in the public schools throughout the entire country for supervisors of music who are competent to present the subject of school music in a clear , concise, and comprehensive manner, the School of Music offers a thorough course in this study. The department will acquaint pupils with all the prominent systems now published, such as "Educational" and "Weaver" (Ginn & Co.); "Modern" and "Normal" (Silver, Burdette & Co.); "Natural" and "Model" (American Book Co.); "Novello" (Ewer & Co.). The course costs $7.50 a quarter in classes.

TUITION PER QUARTER.

The following table shows the rates of tuition for private lessons of thirty minutes in length:

	Number of lessons per week.			
Vocal:—	One	Two	Three	Four
Alexander Stewart Thompson.	$12.00	$20.00	$29.00	$36.00
Twenty minute lessons.....	10.00	16.00	23.00	28.00
Susan S. Brooke.....	11.00	18.00		
Piano:—				
Rudolph Wertime	12.00	20.00	29.00	36.00
Grace Martin Snee.....	10.00	16.00	23.00	
Susan Maxwell Moore.....	10.00	16.00	23.00	
Mabel Constance Foster.....	9.00	14.00		
Violin:—				
Ross Spence	10.00	16.00	23.00	
Mandolin:—				
Ross Spence	9.00	12.00		
Pipe Organ:—				
Grace Martin Snee.....	12.00	20.00		
Wood and Brass Instruments:—				
Walter Mestrezat	8.00	12.00		
Ensemble Playing:—				
Ross Spence	12.00	20.00		

For two class lessons per week, of thirty minutes each, the tuition is :

In Harmony	$12.00
In Theory and Musical History....	10.00
In Ear Training and Sight Reading.	6.00

Piano for practice one hour per day will be furnished at $3.50 per quarter; two hours per day, $6.00 per quarter; three hours per day, $8.00 per quarter; four hours per day, $10.00 per quarter. Clavier practice, one hour per day, $3.00 per quarter.

Music Library.

A music library of over 3,000 copies of music has recently been added to the School. The best standard publications only are kept in stock, and such publications are added to the library as soon as placed on the market.

GENERAL ANNOUNCEMENTS.

Students taking music exclusively are not required to pay any fees except the tuition charges of the music department.

Music students who are residents of West Virginia and who take work in other departments of the University are subject to the usual charges for fees in those departments.

Any student in the School of Music who is not a resident of West Virginia, and who pays at least $16.00 a term for music, is permitted to take, in addition to music ,one credit course each term free of charge, or two credit courses at one-half the usual charges; but in either case such student shall pay the matriculation fee of $5.00 upon first entering the academic department and the contingent fee of $3.00 each term.

The fee for a Diploma or Teacher's Certificate is $3.00.

Students may enter the School of Music at any time, but it is greatly to their interest to enter at the beginning of the quarter.

There will be no deduction for lessons missed by students, except in cases of prolonged illness.

Sheet music is furnished, the best publications only, at cost.

Students entering the School of Music within the first three weeks of a quarter will be charged for the full quarter; after that time, for the remainder of the quarter and one week additional.

Students of the School of Music are not allowed to take part in public programs, or in musical organizations, without the consent of their respective teachers, and of the Director of the School of Music.

All music students are expected to attend the regular students' recitals and to take part in them whenever so assigned.

All music students are expected to identify themselves with the various musical organizations of the school, and are required to enter any to which they are assigned by the Director of the School of Music.

Every music student is expected to attend all concerts given under the auspices of the University.

It is expected that all students will take sufficient work—literary or musical, or both—to occupy their entire time.

All correspondence regarding this department should be addressed to

ROSS SPENCE,
Director of the School of Music,
Morgantown, West Virginia.

IX. THE SCHOOL OF FINE ARTS,

WILLIAM JACKSON LEONARD, Associate Professor and Head of the Department of Fine Arts.

MRS. EVA EMMA HUBBARD, Instructor in Drawing and Painting.

EQUIPMENT.

The University provides large, well lighted studios, containing drawing stands, easels, etc., and a large collection of casts and models. Students have access also to the University Museum for study, and to the University Library for works on the history and development of art.

FEES.

The regular classes in Drawing and the History of Art are open without charge to all students of the University, but in the Crayon and Painting classes moderate fees are charged, as follows:

For One Quarter (Twelve Weeks), Three Lessons Weekly:

Special Drawing,	$ 5.00
Crayon,	5.00
Water-Color,	8.00
China Painting,	8.00
Pastel Painting,	10.00
Oil Painting,	10.00

Students whose work is entirely in this school and who take only private work are not required to pay the usual University fees, but are entitled to all the privileges of the other University students—library, lectures, etc. Fees are payable in advance to the Treasurer of the University for the Art Fund.

THE REGULAR ART COURSE.

This course of four years is so planned that the student may acquire, not only the technique of drawing and painting, but also, a general art education and a degree of aesthetic culture tending to develop the individual powers of composition and art of expression.

The work of the first year includes light and shade drawing from the antique, study of perspective, sketching from nature,

drawings of still life, and study of form carried out in clay modeling. Color studies are introduced in the Spring term.

The second year continues the drawing from cast in charcoal and crayon, copying the head, mask and ornament from the antique. Color studies in water-colors and oil are given with the work in black and white.

During the third and fourth years, the student copies the bust and full length figure from the antique, paints from the draped model in the life class, and studies portrait painting and composition or sketching from nature and landscape painting.

REQUIREMENTS FOR DIPLOMA.

To those who complete this course of four years study, making oil painting their major study and including the history of Art, a diploma will be given.

THE NORMAL ART COURSE.

This course is designed for teachers in public or normal schools. It comprises free-hand drawing of ornament, mask, and head, from the antique; study of still life, perspective and mechanical drawing; sketching; study of design; study of color and form developed in water-color painting and clay modeling,

Class lectures are given on the teaching of form and color, and the history of art.

Students should spend two years in pursuing this course; but to suit individual needs, the course may be shortened, and what is most essential will be given in the time available.

COURSES OF INSTRUCTION.

Associate Professor Leonard.

1. Elementary Drawing. The historic forms of art and their development. Lectures, with collateral reading and practice in drawing. Fall, 9:30; L.

2. Elementary Drawing. A continuation of course 1. Winter, 9:30; L.

3. Elementary Drawing. A continuation of course 2. Spring, 9:30; L.

4. Advanced Drawing. Historic periods of architecture, sculpture, and painting. Lectures, with collateral reading and practice in drawing. Fall, 10:30; L.

5. Advanced Drawing. A continuation of course 4. Winter, 10:30; L.

6. Advanced Drawing. A continuation of course 5. Spring, 10:30; L.

7. The History of Greek Art, with a consideration of the arts of Egypt, Assyria and Phoenicia, in their relation to Greek art.
Fall, 8:30; L.

8. The History of Mediaeval and Modern Art, with special consideration of the Renaissance period. Winter, 8:30; L.

Courses 7 and 8 are not open to Freshmen.

Mrs. Hubbard.

9. Perspective Drawing. Elementary study of linear perspective. Principles studied and applied to the drawing of geometrical forms and familiar objects. Text-book, Honey's "Linear Perspective." Fall, 11:30; L.

10. Perspective Drawing. A continuation of course 9. Analysis of principles. Development and construction of the arch. Minifie's and Spanton's "Perspective." Winter, 11:30; L.

11. Advanced Perspective Drawing. A continuation of course 10. Isometric drawing. Sciography. Perspective applied to buildings, use of plan and perspective erections. Applications to sketching and topography. Reference books: Spanton and Ware.
Spring, 11:30 L.

12. Oil Painting. Color analysis and combinations. Painting from still life, fruits, flowers, draperies, etc. Landscape painting. Study of the draped model. Hours to be arranged. L.

13. Pastel Painting. The various studies of color and design suitable for expression in this medium. Special study for pastel portraits and the draped figures. Hours to be arranged. L.

14. Water Color Painting. Study from the flat and from nature, still life, landscape or model. Design from plant life and conventional. Figure and portrait painting.
Hours to be arranged. L.

15. China Painting. Study of colors and combinations. Painting from the flat. Study of the design of flowers, landscapes, etc., leading to original designs. China burned in the studio kilns.
Hours to be arranged. L.

16. Designing. Study of ornament and principle of design. Lectures, collateral reading, and the drawing of designs.
Hours to be arranged. L.

X. THE SCHOOL OF MILITARY SCIENCE AND TACTICS.

DANIEL BOARDMAN PURINTON, LL. D., President.

JAMES M. BURNS, Major U. S. Army, Commandant of Cadets and Professor of Military Science and Tactics.

THE CADET CORPS.

Extracts from Militia Law, State of West Virginia, 1901, sec. 100. "The Corps of Cadets of the West Virginia University shall be held as the Training School of the West Virginia National Guard, subject to such duty as the Commander- in-chief may order."

Jan. 19, 1903. "Each member of the Senate shall be entitled to appoint one cadet from his district, on or before the first day of June in the second year of his term, and one cadet on or before the first day of June in the fourth year of his term. Each member of the House of Delegates shall be entitled to appoint one cadet from his county on or before the first day of June next preceding the end of his term. In case a cadetship filled by appointment by any member of the Legislature shall become vacant, the member making the appointment, or his successor, shall fill the same by a new appointment within the limits of the time aforesaid. But no Senator or Delegate shall appoint any cadet until he receives a certificate from the President of the University, or the commandant of cadets, giving him notice of his right to do so; and he shall not have the right to exercise such power of appointment as long as two cadets are accredited to himself and his predecessor, either by original appointment or by re-enlistment. All other cadets necessary to make up the full complement of the corps shall be appointed by the regents, in proportion to their number, including vacancies, if any, caused by the failure of any member of the Legislature to fill his appointment. Cadets shall not be under sixteen years of age, and shall not be over twenty-one years of age. Their appointment shall be made upon undoubted evidence of good moral character and sound physical condition. Their term of enlistment shall be two years, but any cadet, at the expiration of his first term, shall be entitled to re-enlist for the further term of two years, upon giving

notice of his intention to the commandant of cadets at least thirty days before the expiration of such term. But not more than fifteen cadets shall be appointed from any Senatorial district, and not more than eight from any one county."

State cadets, to the number of 225, are appointed to the University, and receive their uniforms, books, stationery, tuition, use of library, use of arms and equipments, and ammunition for target practice free. No charge is made for their admission. They constitute the public guard of the University and of the public property belonging thereto. In order to receive an appoinment as state cadet, a candidate must be between sixteen and twenty-one years of age, and must furnish evidence of good moral character. Application for an appointment should be made to one of the Regents of the University or to a member of the legislature.

Students of the University who desire military instruction, and who are not state cadets, are allowed to join the corps as volunteer cadets. They receive no uniform from the state.

All cadets are required to wear a neat-appearing gray uniform at drill. This uniform may be worn with propriety on all occasions.

Officers of the regular army are specially detailed by the President of the United States, one to act as Commandant of Cadets, and one to make an annual inspection of the corps.

SPECIAL REWARDS FOR MILITARY EXCELLENCE.

The names of the three most distinguished cadets are published annually in the official U. S. Army Register, and it is possible that one cadet may be appointed each year as a lieutenant in the United States army.

Gold and silver medals are awarded annually to cadets for special excellence.

Cadets who are recommended for promotion after graduation are entitled to commissions as officers, signed by the Governor of the State, and such commission entitles them to rank with other officers of the National Guard of West Virginia, according to grade and date of commission.

ARMORY.

The Armory (60 by 120 feet) is used as a drill hall during inclement weather. This beautiful building is the home of the Cadet Corps, and all entertainments given by them will be held therein, under the supervision of the Commandant of Cadets.

ADMINISTRATION AND INSTRUCTION.

For the purpose of administration and drill the Cadet Corps is organized as an infantry battalion. There is also an artillery de-

tachment. Infractions of discipline are referred to a court-martial, consisting of cadet officers, for investigation. Cadets are divided into sections, corresponding to their military proficiency and length of service. New cadets are required to enter the rourth (lowest) section, but those who have had previous military instruction may be transferred to a higher section upon passing a satisfactory examination.

The course of military instruction, practical and theoretical, is intended to fit all who graduate therein to perform efficiently the duties of officers in the National Guard of West Virginia. In addition to this, all cadets are taught that patriotism, punctuality, obedience, attention, alertness, and neatness, are expected of them at all times. It is believed that the training a cadet receives fits him to become a good citizen as well as a good soldier. The qualities which go toward making the good officer are no less valuable, when considered in connection with the business man, professional man, or farmer. They are the qualities which ordinarily insure success in every walk of life. The excellent physical results which follow systematic military drill are well known and acknowledged by all competent judges.

The work in the military department requires about five hours each week. The winter term is devoted to physical training and recitations in tactics and other military subjects. The military course is the same as that of the West Point Military Academy, and when a cadet graduates he is qualified to pass an examination for a commission in the United States Army. This work is taken in connection with other University work.

PHYSICAL TRAINING.

Beginning with the winter quarter a regulation suit will be required. This suit will consist of a black quarter-sleeve jersey, black knee tights, long black stockings and white gymnasium shoes.

The regular course in physical training occupies four years and is required of all young men in the Preparatory School, and of all members of the Cadet Corps. Cadets may be excused by the Commandant for sufficient reasons.

COURSE OF INSTRUCTION.

The instruction of the various sections is as follows:

Fourth Section.

Practical Instruction: (a) Infantry drills in school of the soldier, squad, company ,and battalion; extended order and cere-

monies. (b) Guard duty as a sentinel. (c) Physical training in the gymnasium.

Theoretical Instruction: (a) Infantry Drill Regulations, paragraphs 1 to 248, and 502 to 601, inclusive; (b) the manual of Guard Duty except paragraphs 331 to 373, inclusive; (c) the explanation of cadet regulations and general orders, and the care of arms and accoutrements.

Third Section.

Practical Instruction: (a) Infantry drills, same as fourth section, except in school of the soldier; (b) artillery, dismounted battery and saber drills; (c) guard duty as sentinels and non-commissioned officers; (d) physical training in the gymnasium.

Theoretical Instruction: (a) Infantry drill regulations, paragraphs 249 to 367, 602 to 620, and 663 to 769, inclusive; (b) U. S. Artillery Tactics, paragraphs 341 to 460, inclusive.

Second Section.

Practical Instruction: (a) Infantry drills, same as third section; (b) military signaling; (c) small-arms firing, including the preparation of ammunition, position, and aiming drills, gallery practice, and range firing; (d) guard duty, same as third section.

Theoretical Instruction: (a) Infantry drill regulations, paragraphs 368 to 499, and 621 to 662, inclusive; (b) military signaling; (c) small-arms firing regulations; (d) United States army regulations.

First Section.

Practical Instruction: (a) Infantry duties of grade attained; (b) guard duty of grade attained; (c) court-martial; (d) fencing.

Theoretical Instruction: (a) Minor tactics, including advance and rear guards, outposts, marches, field fortifications, riot duty, etc.; (b) military law.

BAND.

A band of twenty-six musicians has been authorized by the Board of Regents. They are entitled to the rights and privileges of state cadets and are governed by the same rules and regulations They receive free of charge, tuition, uniforms, books, stationery and instruction in band music. Mr. Walter Mestrezat is the leader of the band and gives five hours' instruction each week.

INFORMATION FOR APPLICANTS FOR APPOINTMENT TO THE CADET CORPS.

1. The applicant must not be under sixteen nor over twenty-one years of age.

2. He must be a bona fide resident of West Virginia.

3. He must be sound physically, of good moral character, and able to pursue successfully the studies of the first year of the Preparatory School.

4. He must make a deposit of $20.00 with the treasurer of the University as a guaranty that the state arms, etc., in his possession will be taken care of. The deposit will be returned to him at the end of his enlistment of two years, upon satisfactory settlement with the quarter-master.

5. He must make an average grade each term of not less than sixty on a scale of one hundred in order to hold his appointment.

6. Cadets are furnished with uniforms, text-books, and stationery free of charge. They pay no matriculation, tuition or contingent fees to the University. If they are graduated from any department of the University while members of the Cadet Corps they are allowed to retain their text-books.

7. The work of the corps does not interfere with the student's scholastic duties. Cadets may take courses in any of the departments of the University.

8. A young man desiring an appointment should apply to the Regent for his county or to a member of the legislature representing his county. The counties of the state are divided as follows by the Board of Regents for the purpose of cadet appointments:

Regent L. J. Williams, Lewisburg, W. Va.—Mercer, Raleigh, Wyoming, McDowell, Mingo, Greenbrier, Summers, Pocahontas.

Regent C. E. Haworth, Huntington, W. Va.—Cabell, Wayne, Lincoln, Logan, Boone, Putnam, Mason.

Regent C. M. Babb, Falls, W. Va.—Berkeley, Morgan, Hampshire, Harden, Mineral, Grant, Jefferson.

Regent D. C. Gallaher, Charleston, W. Va.—Kanawha,, Fayette, Nicholas, Clay, Roane, Monroe.

Regent F. P. McNell, Wheeling, W. Va.—Hancock, Brooke, Ohio, Marshall, Marion.

Regent J. R. Trotter, Buckhannon, W. Va.—Webster, Braxton, Randolph, Lewis, Upshur, Tucker.

Regent T. P. Jacobs, New Martinsville, W. Va.—Wetzel, Tyler, Harrison, Pleasants, Ritchie.

Regent J. B. Finley, Parkersburg, W. Va.—Doddridge, Gilmer, Wirt, Wood, Jackson, Calhoun.

Regent E. M. Grant, Morgantown, W. Va.—Taylor, Preston, Monongalia, Barbour, Pendleton.

MILITARY GRADUATES AND DISTINGUISHED CADETS

Reported at Commencement, June, 1905.

The following are the distinguished Cadet graduates from the University whose names will appear in the United States Army Register for 1905:

Cadet J. W. Lyons;
Cadet J. C. M. Forquer;
Cadet W. R. Thurmond.

The following are announced as Distinguished Cadets, as provided by Par. 83, Cadet Regulations:

First Section.

Cadet First Lieutenant Francis C. Colcord, Co. B.
Cadet First Lieutenant Edward C. Colcord, Co. D.
Cadet First Lieutenant Chauncey S. McNeill, Adjutant.

Second Section.

Cadet First Sergeant E. H. Barnhart, Co. B.
Cadet First Sergeant R. L. Cole, Co. C.
Cadet Sergeant W. E. Lloyd, Co. A.

Third Section.

Cadet Corporal H. W. Lawson, Co. A.
Cadet Sergeant S. G. Jackson, Co. A.
Cadet Corporal H. M. Scott, Co. D.

Fourth Section.

Cadet Private H. Reynolds, Co. D.
Cadet Private R. B. Crawford, Co. B.
Cadet Private W. R. Thacher, Co. C.

The following named Cadets having completed the course of instruction are announced as graduates of the Department of Military Science and Tactics:

F. C. Colcord	E. C. Colcord	C. S. McNeill
E. L. Dudley	J. D. Gibson	H. Friedman
E. A. Peabody	A. H. Foreman	M. W. McDonald
J. W. Lyons	C. E. Wells	L. D. Saunders
A. Hall	F. L. Shinn	W. S. Downs
R. W. Dunham	H. H. Hess	C. M. Seibert
	G. W. Price	

Upon decision of the Board of Judges the Cadet Colors for the ensuing year are awarded to Co. D.

The medals offered by the Board of Regents are awarded as follows:

Gold Medal for Drill and Discipline, to Cadet Sergeant Jacob A. Yonker, Co. B.

Silver Medal for the highest score at Target Practice, to Cadet Sergeant Wylie E. Lloyd, Co. A.

Silver Medal for the second highest score at Target Practice, to Cadet Sergeant George W. Price, Co. B.

FIELD AND STAFF.

Commandant,	J. M. Burns, Major, U. S. A.
Cadet Major,	Dana P. Miller.
Cadet Captain,	Charles E. Wells, Artillery Officer.
Cadet First Lieutenant,	William C. Gist, Adjutant.
Cadet First Lieutenant,	John C. Keister, Quartermaster.
Cadet First Lieutenant,	A. Hardie Foreman, Signal Officer.

Non Commissioned Staff.

Cadet Stephen G. Jackson,	Sergeant Major.
Cadet John C. App,	Chief Trumpeter.
Cadet Corwin S. Burns,	Quartermaster Sergeant.
Cadet William S. Heltzen,	Ordance Sergeant.

BAND.

Walter Mestrezat,	Leader and Instructor.
Cadet Henry M. Shrader,	First Lieutenant.
Cadet W. J. Ruble,	First Lieutenant.
Cadet J. L. Walton,	Drum Major.
Cadet C. W. Conn,	Sergeant.
Cadet C. S. Crow,	Sergeant.

Corporals.

Cadet Henry Becker,	Corporal.
Cadet H. M. Ernst,	Corporal.
Cadet Clark Hinman,	Corporal.
Cadet Tom Ramage,	Corporal.
Cadet Jos. E. Riley,	Corporal.

Privates.

Cadet A. P. Armstrong
Cadet A. D. Bell
Cadet E. A. Bruce
Cadet H. F. Compton
Cadet D. A. Cronin
Cadet D. W. Flanagan
Cadet P. B. Lantz
Cadet J. C. McEldowney
Cadet E. V. Townshend
Cadet R. E. Watson
Cadet Geo. Zellars
Cadet J. G. Mealy

COMPANY "A."

Captain,	McDonald, M. W.
First Lieutenant,	Dudley, Ed.
Second Lieutenant,	Sanders, W. H.
First Sergeant,	Holland, C. C.

Sergeants.

Lloyd, W. E.	Lawson, H. W.
Foulk, Tom.	Ryan, L.

Corporals.

McJilton, J. P. Estill, D. H. Lantz, J. Feller, C. V.

Musicians.

Linn, Geo. Riddle, J. H.

Privates.

Bainbridge, C. A.	Evans, J. C.	Lohm, A. L.
Barns, H. C.	Fitzgerald, F. W.	Nickell, F. F.
Bennett, J.	Green, S. S.	Rigot, Victor
Bigler, G. W.	Harlan, M. E.	Rose, R. L.
Carns, Alfred	Hall, Pearcy	Shaffer, E. H.
Campbell, S.	Harris, T. L.	Shirkey, S.
Downs, H. A.	Hawkins, H. J.	Smith, L. M.
Snyder, H. E.	Taylor, Blake	Yanosky, T.

COMPANY "B."

Captain,	Colcord, E. C. Jr.
First Lieutenant,	Saunders, L. D.
Second Lieutenant,	Barnhart, E. H.
First Sergeant	Batten. H. C.

Sergeants.

Sheppard, C. C.	Sammons, W. P.
Yonker, J. W.	Hall, R. O.
Myers, C.	

Corporals.

Tuckwiller, J. R.	Boydston, F. S.	Johnson, G. D.
Waller S. A.	King, B. W.	Reynolds, H. A.

Privates.

Carden, D. L.
Cox, C. B.
Devenney, T. D.
Gibbs, O. F.
Grow, S. W.
Henshaw, W. L.
Kroke, F. L.
Lashley, C. G.
Layman, C. H.
Lloyd, N. S.
Morris, J. T.
McDonald, L.
Reitz, W. R.
Ross, C. B.
Rogers, C. P.
Robinson, O. W.
Rupert, J. A.
Smith, G. C.
Sloane, C. E.
Stannard, U. C.
Stewart, F. M.
Teter, R. C.
Walkup, H. A. L.
Walton, J. L.
Whiting, G. W.

COMPANY "C."

Captain, Colcord, F. C.
First Lieutenant, Shinn, F. L.
Second Lieutenant, Price, G. W.
First Sergeant, Cole, R. L.

Sergeants.

Weaver, A. C.
Gist, J. A.
Scott, H. M.

Corporals.

Thacher, W. R.
Nestor, Ira
Hall, W. G.
Ward, R. C.

Musician.

Ross, Donald.

Privates.

Boggess, O. E.
Brown, B. G.
Cummings, R. W.
Clark, G. R.
Galvin, A. M.
Foulk, G. B.
Fallen, P. H.
Gibson, J. C.
Lang, E. R.
Long, C. R.
Livengood, R. H.
Morris, M.
Moriarty, J. P.
Morrison, W. F.
McConihay, C. W.
Musgrave, L. C.
Ross, A. R.
Randall, B.
Robinson, J. H.
Southern, J. C.
Tennant, B. H.
Tetrick, C.
Wilson, J. R.
Davies, D. E.

XI. THE SUMMER SOHOOL.

(June 29 to August 10, 1906.)

THE FACULTY.

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President of the University.

PAUL HENRY HANUS, S. B., (Head of the Department of Education in Harvard University) Education.

GEORGE EDGAR VINCENT, Ph. D., (Professor of Sociology in the University of Chicago) Sociology.

EDWARD HOWARD GRIGGS, A. M., (Formerly Professor of Education and Ethics in Leland Stanford University) Ethics, and English Literature.

WILBUR SAMUEL JACKMAN, A. B., (Principal of the Elementary School of the University of Chicago) Nature Study.

IDA CASSA HEFFRON (Formerly Instructor in Drawing in the Cook County Normal School) Public School Drawing, and the Fine Arts.

MARGARET K. SMITH, Ph. D., (Professor of Psychology and Geography in the New York State Normal School, New Paltz) Geography; Psychology; and the Psychology of Reading.

SARAH E. GRISWOLD, (Critic Teacher in the Chicago Normal School) Primary Department; Observation Classes.

JOHN PORTER LAWRENCE (Director of Piano Department National Park Seminary, Washington, D. C.) Piano and Organ.

ANTON KASPAR (Concert Master Georgetown Orchestra, Washington, D. C.,) Violin.

JASPER NEWTON DEAHL, Ph. D., (Head of the Department of Education in the University) Education.

JOHN LEWIS SHELDON, Ph. D., (Professor of Bacteriology in the University) Nature Study.

PAULINE G. WIGGIN, A. M., (Librarian of the University) Library Science.

JOHN HARRINGTON COX, A. M., (Professor of English Philology in the University) English Literature.

CHARLES HENRY PATTERSON, A. M., (Professor of Rhetoric in the University) Rhetoric.

ANDRE BEZIAT de BORDES, Ph. D., (Head of the Department of Romance Languages and Literatures in the University) French and Spanish.

WALTER LYNWOOD FLEMING, Ph. D., (Professor of History in the University) History.

ALFRED JARRET HARE, A. M., (Professor of Latin and Principal of the University Preparatory School) Latin.

JAMES SCOTT STEWART, M. S., (Head of the Department of Mathematics in the University) Mathematics.

FREDERICK LAWRENCE KORTRIGHT, D. Sc., (Professor of Chemistry in the University) Chemistry.

GEORGE PERRY GRIMSLEY, Ph. D., (Assistant State Geologist of West Virginia) Geology.

DAVID DALE JOHNSON, A. M., (Assistant in English in the University Preparatory School) English.

WILLIAM MICHAEL BAUMGARTNER, A. B., (Instructor in German in the University) German.

ROSS SPENCE, (Director of the University School of Music) Violin.

ALEXANDER STEWART THOMPSON (Head of the Voice Department in the University School of Music) Voice; Public School Music.

GRACE MARTIN SNEE (Member of the School of Music Faculty) Piano.

MARY ARLINE ZURHORST, Principal of the National Cooking School, Washington, D. C.,) Domestic Science.

SUNDAY SCHOOL METHODS FACULTY.

(June 29 to July 7, 1906.)

DANIEL BOARDMAN PURINTON, Ph. D., LL. D., President of the University.

MARION LAWRANCE, Toledo, Ohio, Secretary International Sunday School Association.

JOHN T. McFARLAND, D. D., New York, Sunday School Secretary of the Methodist Episcopal Church of the United States.

WILLIAM H. DOANE, Mus. D., Cincinnati, Ohio, Composer of Sunday School and Church Music.

RICHARD S. HOLMES, D. D., Philadelphia, Pennsylvania, Editor of "The Westminster" (Presbyterian.)

SARAH E. GRISWOLD, Chicago, Illinois, Model Teacher and Primary Superintendent.

W. C. SHAFER, General Secretary West Virginia Sunday School Association.

REV. L. E. PETERS, District Secretary American Baptist Publication Society.

REV. C. HUMBLE, M. D., Superintendent Presbyterian Sunday School Missions for Kentucky, Tennessee, and West Virginia; Member International Sunday School Committee.

MARTHA V. GRAHAM, Superintendent Primary Department West Virginia Sunday School Association.

JASPER NEWTON DEAHL, Ph. D., Professor of Education in the University.

THOMAS EDWARD HODGES, A. M., Professor of Physics in the University.

ALEXANDER STEWART THOMPSON, Head of the Voice Department in the University School of Music.

NOTES OF THE FACULTY.

Professor Hanus has been head of the department of education in Harvard University since 1891. He is a native of Hermsdorf, Prussia, where he was born in 1855. Almost continuously since his graduation at the University of Michigan in 1878, he has been engaged in teaching and in the study of educational problems either in America or abroad. He is the author of A Modern School, Educational Aims and Educational Values, Geometry in the Grammar School, and Elements of Determinants.

Dr. Vincent for the past eighteen years has been professor of Sociology in the University of Chicago. He is a graduate of Yale University, and a doctor of philosophy of the University of Chicago. An Introduction to the Study of Society, Social Mind and Education, and other books are the results of his studies. Dr. Vincent is known to a multitude of people as the principal of instruction at Chautauqua, New York.

Professor Griggs is a native of Minnesota, where he was born in 1868, and a graduate of Indiana University. He has also studied much abroad. For some time he taught English literature in Indiana University and later became professor of ethics and education in Leland Stanford University, where he taught for a number of years. Recently he has been giving his time to the writing of books and to educational lecturing. He is the author of Moral Education, The New Humanism, and a Book of Meditations. His home is at Montclair, New Jersey.

Professor Jackman, widely known as a teacher of nature study and elementary science, is principal of the Elementary school at the University of Chicago. He was born in Ohio, in 1855 and was graduated from Harvard University in 1884; later he traveled and studied in England, France, and Germany. He has had much experience in teaching in the public schools, normal schools, and in the University of Chicago. He is the author of Nature Study for Common Schools, Number Work in Nature Study, Field Work in Nature Study, Nature Study and Related Subjects, Nature Study for the Grammar Grades, Correlation of Science and History, etc.

Miss Griswold is perhaps the most widely known model and observation teacher in this country. Her great work in the Chicago Normal School with the late Col. Francis W. Parker, and more recently with Dr. Arnold Tomkins, is felt in all grades of the Chicago public schools. She began as a country school teacher, and her wide acquaintance with the needs of teachers in both country and town in many states, enables her to make her work exceptionally practical.

Dr. Smith was for a number of years a member of the faculty of the Oswego Normal School and at present holds a chair in the State Normal School at New Paltz, New York. She was an honorary fellow at Clark University and has her Doctor of Philosophy degree from the University or Zurich. Her study and teaching have been given mainly to two subjects, viz., psychology and geography, and all through the east she is known as a great teacher of these subjects.

Miss Heffron taught for eight years at the Cook County Normal School with Colonel Francis W. Parker; afterward for eight years in the University of Chicago, giving lectures and practical lessons in the pedagogics of art. She is the author of a book on Chalk Modeling. Her experience in teaching public school drawing has been very extensive and remarkably successful.

Miss Zurhorst is principal of the National Cooking School at Washington, D. C.; a pupil of the New England Cooking School, of Mrs. Janet McK. Hill of Boston, and of the late Mrs. Gesine Lemcke of New York. Miss Zurhorst's school is affiliated with the best young ladies' seminaries in Washington.

Mr. Lawrence and Mr. Kaspar are known by all musicians to be the leaders in Washington City musical life. Mr. Lawrence is Director of the piano department of the National Park Seminary, and Mr. Kaspar is concert master of the Georgetown Orchestra.

Dr. McFarland is Sunday School secretary of the Methodist Episcopal Church of the United States, and editor of the Sunday School literature of that denomination. His home is in New York City.

Dr. Holmes is an eminent Presbyterian clergyman and editor.

His home is in Philadelphia, where he edits The Westminster, an exceptionally influential and brilliant publication.

Mr. Lawrance has been secretary of the International Sunday School Association for the past ten years, and is the most prominent Sunday school worker in America. His home is in Toledo, Ohio.

Dr. Doane has made a great reputation as a composer of Sunday school and church music. He has edited thirty-five collections of Sunday school hymns, six or seven church collections and two temperance collections. Many of the most familiar hymns sung in our churches and Sunday schools were written by Dr. Doane. His home is in Cincinnati.

Professor Deahl is head of the department of education in the University. He is a graduate of the University of Nashville and of Harvard University, and has the doctorate degree from Columbia. He has taught in all kinds of schools, and served as principal of the West Liberty (W. Va.) State Normal School.

Dr. Sheldon is a graduate of the University of Nebraska, from which he has also the degrees of master of science and doctor of philosophy. He is professor of bacteriology in the University.

Miss Wiggin is a master of arts of Radcliffe College, and a bachelor of library science of the New York State Library School. She taught for two years in Vassar and two years in Wellesley, and had charge of the history division of the New York State Library before taking her present position as librarian of the University.

Professor Cox is a graduate of Brown University, and has his master's degree from Harvard. He was professor of the English language and literature in the University of North Dakota before coming to the University, where he is professor of English philology.

Professor Patterson is a bachelor and master of arts of Tufts College, and later studied in Paris. He is professor of rhetoric in the University.

Dr. Béziat de Bordès is a doctor of philosophy of the University of Chicago, and studied at the University of Paris. Before taking his present position as head of the department of Romance Languages and Literatures he had taught in Columbia University and the University of Michigan.

Dr. Fleming, professor of history in the University, is a graduate of the Alabama Polytechnic Institute, and has his master's degree and his doctor of philosophy degree from Columbia University. He taught in Alabama Polytechnic and in Columbia before coming to Morgantown.

Professor Hare is professor of Latin and principal of the Preparatory School. He was educated at West Virginia University and at Harvard University. He has been connected with the University since his graduation in 1889.

Professor Stewart is professor of mathematics in the University, and has been connected with it almost continuously since his graduation in 1877.

Dr. Kortright is a doctor of science of Cornell University, where he was instructor in chemistry for a number of years. He has also studied in Switzerland and in Germany. He is associate professor of chemistry in the University.

Dr. Grimsley, assistant state geologist of West Virginia and lecturer on economic geology in the University, is a graduate of the Ohio State University, and a doctor of philosophy of Johns Hopkins University. He has had much experience in official geological surveys.

Mr. Johnson is a graduate of Marietta College and has his master's degree from West Virginia University. He has been assistant in English since 1902.

Professor Spence graduated at the University School of Music, Ann Arbor, Michigan, and later studied in Berlin. He is director of the School of Music and instructor on stringed istruments.

Professor Thompson, instructor in voice in the University School of Music, has studied with various masters and has had extensive experience in teaching. He is also a successful composer.

Mrs. Snee had her musical training at Peabody Institute, Baltimore, and at West Virginia University School of Music. She has had much successful experience in teaching.

Mr. Baumgartner is a graduate of West Virginia University, and spent some months in study abroad. He is instructor in German.

Mr. Shafer has been for a number of years general secretary of the West Virginia Sunday School Association.

Rev. Mr. Peters is district secretary of the American Baptist Publication Society for the State of West Virginia, and head of the teacher training department for the State Sunday School Association.

Dr. Humble is a member of the executive committee of the International Sunday School Association, and chairman of the executive committee of the West Virginia Association. He is also superintendent of the Presbyterian Sunday School Missions for Kentucky, Tennessee, and West Virginia.

Miss Graham is superintendent of the primary department of the West Virginia Sunday School Association.

GENERAL ANNOUNCEMENTS.

The Summer School for 1906 will begin June 29 and continue six weeks until August 10. Students may enter at any time, but they are earnestly advised to be present from the beginning of the school. The Summer School, like any other term of the University, is co-educational in all its courses.

Admission and Credit.

There are no requirements for admission to the Summer School unless the student desires University credit for the work to be done. In such case if he desires to be a special student he must satisfy his instructors that he is prepared to take the courses selected. If he desires regular classification he must meet the regular University conditions, a statement of which may be **found on page 48.**

Preparatory or college credit may be had for Summer School work. This applies to all of the courses offered except those in observation work, geography, the psychology of reading, drawing, library science, geology, cooking, and the courses in music.

Certificates setting forth the work done in the Summer School will be given to those desiring them. These are useful to show to members of boards of education and other school officers.

Registration.

Students will register on Friday and Saturday, June 29, and 30, with the registrar, Room 11, Science Hall. All students whether previously in attendance at the University or not, must register before entering the Summer School.

Work will begin promptly in all departments on Monday, July 2.

Fees for the Summer School.

The entire fee for everything offered in the Summer School (excepting music, domestic science and the fine arts), is $2.50, whether the student be a resident of West Virginia or of some other State; provided that if University credit for the work is desired, a matriculation fee of 5.00 must be paid, unless the student is already a matriculate of the University.

Students from states other than West Virginia who desire to obtain University credit for the summer work will also pay the following tuition: In the College of Arts and Sciences, $6.00; in the Preparatory School, $2.50.

If, however, no University credit is desired, the total fee for students from other states as well as from West Virginia will be only $2.50.

The fees in music, the fine arts, and cooking are stated in the announcements of the courses in those subjects.

The Library and Laboratories.

The library is open without break from 8:00 A. M. to 10:00 P. M. every day except Sunday, and on Sunday it is open for reading and the consultation of books from 2:00 P. M. to 5:00 P. M. No books are given out on Sunday. It is earnestly hoped that the students who attend the Summer School will avail themselves of the opportunity to spend as much time as possible in this department.

Students are allowed free access to the library shelves; and it is the effort of those in charge to render every possible service to aid students in making profitable use of the books.

The reading room is well supplied with the current periodicals and newspapers—both technical and general—which are free of access to all who wish to make use of them.

The laboratories in chemistry, geology, bacteriology, and botany will be in use during the Summer School.

Free Music Recitals and Matin Service.

Six lecture recitals, under the direction of the School of Music, will be given—one each week. Great composers will be briefly discussed and their works interpreted with voice, piano, violin or organ by Professor Spence, Mr. Lawrence, Mr. Kaspar and Professor Thompson. These recitals will be free to students and the public. These delightful recitals, given every summer, constitute one of the most enjoyable features of the Summer School.

A brief chapel service will precede these music recitals. They will be held every Wednesday at 11 o'clock in Commencement Hall. During the hour no other exercises will be held in any department of the Summer School. These weekly recitals will be considered as a continuation of the matin service, and will be free to students and the public.

Living Accommodations.

The Woman's Hall will be open as usual during the Summer School, with Miss Susan Maxwell Moore, dean of women, in charge. The Hall, with its annex, furnishes excellent accommodations for about thirty-five young ladies.

The Episcopal Hall, founded a number of years ago by Bishop Geo. W. Peterkin, of the Protestant Episcopal Church, is open during the summer and accommodates about fifty persons, of either sex. Information may be had by writing to Episcopal Hall, Morgantown.

Other Places. There are a great number of desirable rooming

and boarding places in the town which are open during the summer at reasonable rates. The two Christian Associations of the University have charge of the work of helping students to find suitable living accommodations. Young women who do not desire to board at either of the halls mentioned above should write to Miss Crystal Courtney, Morgantown, for information about living accommodations in the town; and young men should write to Mr. H. L. Griffin, Morgantown. Committees of these associations will gladly meet students at the railway stations or at the wharf and conduct them to their rooms.

Educational Conference.

The fourth annual two-days Educational Conference, under the auspices of the University Summer School, will be held Friday and Saturday, July 27 and 28, in Commencement Hall. The topic this year will be A Graduated System of Schools from the Primary School to the University. All persons interested in this topic are cordially invited to be present and take part in the discussions. These educational conferences have proved to be of great importance in their relation to West Virginia educational questions.

Teachers' Institute.

The Teachers' Institute for Monongalia county will be held at Morgantown during the week beginning August 13, immediately following the close of the Summer School.

Summer School Convocation.

The Convocation exercises of the Summer School will be held Saturday evening, July 30 at 8:30 o'clock, in Commencement Hall. The convocation address will be delivered by John T. McFarland, of New York City; subject, The Higher Values. Music will be furnished by the School of Music.

Special Railroad Rates.

Arrangements have been made with the Baltimore and Ohio Railroad Company by which reduced rates are offered to those who attend the State Educational Association at Fairmont, June 27-28, and come on to the Summer School. The rate will be a fare and a third for the round trip, the return portions of the tickets to be deposited with the agent at Morgantown.

It is hoped that similar favors will be secured from other railroads.

All courses extend throughout the entire six weeks unless otherwise stated.

EDUCATION.

Paul Henry Hanus.

Beginning July 16 and continuing ten days Professor Paul Henry Hanus, head of the department of education in Harvard University, will give a course of lectures on:

General Principles of Education, and Programs (or "Courses") of Study.

This course will be as practical as possible, and will be adapted to the special needs of the Summer School students as far as may be. The special subjects will be announced later.

July 16 to 26; 3:00 P. M., 14 W.

One or two evening lectures may be given by Professor Hanus.

Jasper Newton Deahl.

A. The Recitation and Method of Teaching. This course will make a critical examination of the principles underlying methods of conducting the recitation and of teaching. Model lessons will be observed, reported upon, and discussed in a systematic way. Lessons plans will be made, criticised, and tested with a class of pupils. Students taking this course will be given an opportunity to do some practice teaching with Miss Griswold as critic teacher.

9:00 A. M.; 12 M.

B. Philosophy of Education. This course is a continuation of the corresponding courses offered in 1904 and 1905. It will present some of the fundamental principles of education and will embrace the study of the following topics:

1. Education as a science.
2. The place of temperament in education.
3. Adolescence and education.
4. Sensory and motor training.
5. The problem of school education.
6. Imitation and suggestion in education.
7. The religious element in education.
8. The sciences as school subjects. 11:00 A. M.; 12 M.

C. Administration and Supervision of Schools. This course is a continuation of the work offered in supervision in 1904-5. It may be taken by students who have or who do not have credit for Education 7. It is offered primarily for principals and superintendents of schools. It will include the study of the following topics:

1. Business and educational administration of schools.
2. The functions of the school principal.
3. School inspection—urban and rural.
4. The teachers' meeting and the teachers' conference.
5. Lesson plans, progress books, and reports.
6. The organization of a school.
7. Proper standards in school work for teacher and pupil.
8. The purpose of the elementary and of the high school.
9. The program of studies in English for the elementary and for the high school.

A proper use will be made of typical courses of study and systems of schools as found in this country. The classes for observation will furnish a concrete basis for the study and discussion of class room supervision. 2:00 P. M.; 12 M.

D. Seminar. This course will offer individual work to properly qualified students on rural school problems, high schools, or foreign school systems. Students taking this course will meet the instructor two or three times a week at such hours as may be arranged. 12 M.

PRIMARY WORK AND METHODS.

Sarah E. Griswold.

The classes for observation will consist of pupils beginning the work of the first, the third and the sixth years, and the course of instruction will include the various subjects taught pupils of these grades. Emphasis will be placed upon available sources of first hand knowledge, its relation to text-book work, and to the various modes of expression, including various forms of construction. In nature study and in geography, field-work will be done. Students taking education with Professor Deahl will have the privilege of doing some practice teaching with these classes of pupils.

The recitation periods of the classes for observation will not exceed thirty minutes. Students taking the observation work can, therefore, adapt it to their courses in other subjects so as not to interfere with either.

A. Classes of First and Third Year Pupils, 8:30 to 10:00; 10 M.

B. Classes of Sixth Year Pupils, 10:00 to 11:30; 10 M.

Conferences. Miss Griswold will meet the observers for a number of conferences upon the work illustrated with the classes of children. Topics for these conferences will be as follows: The aim of the work; the educative value of subject matter found in nature study, geography, history and literature; the relation of thought to form in the teaching of language, reading, number, and modes of expression; the preparation of a lesson; the recitation; the study period and seat-work; training and discipline. Room 10 M.

NATURE STUDY.

Wilbur Samuel Jackman.

During the week beginning July 30, Professor Wilbur S. Jackman, principal of the Elementary School of the University of Chicago, will give the following course in nature study and kindred subjects:

1. General methods of study; nature as a moving picture.
2. Color work in nature study. Illustrated by pupils' work on landscape.
3. Color work showing details of the landscape. Relation of this to design in art. Illustrated with pupils' work.
4. Some problems of plant life. Relation to sunshine, air and soil.
5. Some problems of animal life. Relation to earth, air and water.
6. The work of water in nature; rainfall and the applications of number work. Methods of measurement.
7. The same: water in animal and plant life.
8. Study of sunshine; the relations of the sun and earth.
9. Study of sunshine; its distribution on the earth in different seasons and at different times of the day.
10. Reading and written expression. This course will be illustrated throughout with work done in the University elementary school.

John Lewis Sheldon.

Nature Study. This will be a non-technical course, consisting of (1) daily talks selected for the following subjects:

Nature study for everybody.
Along the fence-rows.
West Virginia hills.
Up and down the streams.
Woods and wood cutters.
Fruits in their seasons.
Among the evergreens.
Some common barks.
A bunch of spring beauties.
Rocks and ledges.
In the glady country.
Clouds and sunshine.
Homesteads and homesteaders.
Morning and evening walks.
Nature in books.

(2) The preparation of reports based upon observations made by the class in the laboratry or in the field.

A credit of one-half course will be given for the completion of the entire work. Students will be permitted to register for the class work only.

July 2 to July 21, class work 10 A. M. Laboratory or field work, 2:00 P. M.; 10 E.

PSYCHOLOGY.

Margaret K. Smith.

Lectures with outlines:

1. The place of psychology in regard to science and to speculative philosophy.
2. Psychology as the basis of human endeavor and intercourse.
3. The psychology of learning including a discussion of perception, reproduction (memory), imagination, habit (repetition), attention.
4. Intellectual and emotional apprehension.
5. Views of apperception held by Herbart and Wundt.
6. The function of the nervous system in connection with the interdependence of mind and body.
7. Forms of movement—impulsive, instinctive, reflex, volitional, automatic.
8. Aesthetics—ethics, art.

8:00 A. M.; 12 S.

GEOGRAPHY.

Margaret K. Smith.

Work in this subject will cover one course.

Lectures with outlines:

1. Psychological significance of geography as a subject of instruction.
2. The preparation necessary for a teacher of geography.
3. Relation of astronomical and mathematical geography to physical geography.
4. The relation between political and physical geography.
5. Subjects that aid the study of geography.
6. Devices in teaching geography—moulding, map making, use of globes, maps, models, etc.
7. A course of study in geography covering the years below the high school.
8. Relation between history and geography.
9. Special study of South America as a typical continent.
10. Study of the earth—(a) its position in the solar system; (b) its structure and motions; (c) theories of the earth's origin

and development; (d) significance of land forms; (e) importance of distribution of waters; (f) influence of atmospheric conditions on life; (g) modification of geographic conditions by man; (h) adaptation of man's activities to geographic conditions, e. g., industry, government, art, religion, philosophy.

Note 1.—Such changes will be made in this outline as the best interests of the class may require.

2. Advantage will be taken of all possible opportunities for out-door work, and for visiting places of local interest.

10:00 A. M.; 12 S.

PUBLIC SCHOOL DRAWING.

Ida Cassa Heffron.

For three weeks beginning July 16, Ida Cassa Heffron, formerly insructor in drawing in the Cook County Normal School, Chicago, under the late Colonel Parker, and later instructor in the pedagogics of art in the University of Chicago, will give courses in public school drawing, clay modeling, and painting. These courses are especially designed to meet the needs of teachers of the public schools, and art students, the aim being to lead the class members, through their efforts, to an understanding of the educational value of individual expression, and to the power to express themselves through some art medium with ease and rapidity, also with a certain amount of skill and execution. Success will depend upon the individual appreciation and application of the principles which underlie all expression. These laws and principles the student will be led to discover and to apply at once, for it is planned that every lesson shall be a practical one, actual work being done by each member of the class; theory and practice going hand in hand.

The work and illustrations used in presentation of the theory will be that which may be of daily use to the teachers in their own schools.

The lessons include: nature study, drawing and painting; rapid sketching on the blackboard illustrating stories and myths; drawing of imaginary scenes and maps, as aids to the teaching of history and literature; geographic drawing of typical surface features; plains, valleys, mountains, glaciers, canons, shore features, islands, etc. Pictorial representations of large sections of continents, plateaus, mountain systems, and river basins. Chalk modeling of maps and sections of continents—showing surface structures in relief. Sand and putty modeling as a help in teaching geography. Hints on making plaster casts. Clay modeling with and without models in relation to nature study, history and literature. Sketching in water-colors, pencil, charcoal, and pen and ink,—out-door sketching.

Invention and Design.

Particular attention will be given to creative expression where the student will do purely original and creative work.

These subjects will be grouped and taught under two or three headings as below.

Drawing.

Nature study drawing, landscape sketching, rapid sketching on blackboard, geographic drawing, chalk modeling of maps. The mediums used will be crayon, charcoal, pencil, and pen and ink.

Painting.

Nature study painting of forms, and tints of plant and animal life, fruits and flowers. Out of door sketching of landscapes including the human figure. Invention and design applied to ornamentation for the school and home. Watercolors will be used.

Clay Modeling.

Nature study, forms of plants, fruits and animals, history and literature aids, as typical houses, etc. Sand and putty modeling of surface forms. Hints on making plaster casts.

July 16 to August 4. Afternoons; L.

PUBLIC SCHOOL MUSIC.

Alexander Stewart Thompson.

A practical course in public school music will be given three times a week for six weeks if as many as twenty-five persons ask for it. Hour to be arranged . Fee $2.00.

ETHICS.

Edward Howard Griggs.

A series of five lectures on **Great Moral Leaders** will be given by Professor Edward Howard Griggs, formerly professor of education and ethics in Leland Stanford University, during the week beginning July 9. His special subjects will be:

I. Socrates.
II. St. Francis of Assisi.
III. Carlyle.
IV. Emerson.
V. Tolstoy.

July 9 to 14: 8:30 P. M.; C.

ENGLISH LITERATURE.

Edward Howard Griggs.

The Poetry and Philosophy of Browning, will be the general subject of a course of five lectures to be given by Edward Howard Griggs. The special subjects will be as follows:

I. The Positive Message: Rabbi Ben Ezra.
II. Music and the Spirit: Abt Vogler.
III. The Study of Personality: Andrea Del Sarto.
IV. The Crowning Revelation of Manhood: Caponsacchi.
V. Browning's Interpretation of Womanhood: Pompilia.

July 9 to 14; 3:00 P. M.; 14 M.

John Harrington Cox.

A. Literature in the Primary and Grammar Grades. The study in this course will endeavor to answer three questions: (a) What literature should be presented to the different grades and where may it be obtained? (b) Why the literature presented to any grade is suitable for that grade? (c) How such literature should be presented? Readings, reports, lectures. 9:00 A. M.; 24 W.

B. Nineteenth Century Poetry. The course will deal largely with the methods of determining the absolute and comparative excellencies of various American and English authors. Interpretations, reports, lectures. 8:00 A. M.; 24 W.

C. Shakespeare. The aim of this course is to develop the power to read Shakespeare with intelligent appreciation. A small number of plays will be studied carefully with special attention to exact interpretation and to those pecularities of language in which Shakespearean usage differs from our own. 10:00 A. M; 24 W.

David Dale Johnson.

A. The Fundamentals of English Grammar. An outline study of English grammar with special attention to the structure of the sentence. References are made particularly to the text-books of Whitney and Harvey. 8:00 A. M.; 13 W.

B. High School Literature. A study of several of the English classics usually included in the secondary school course. The works considered are The DeCoverly Papers, The Lady of the Lake, and Silas Marner. Attention is given to methods of teaching literature in the high school. The work consists partly of lectures and partly of recitations on the text or on assigned topics.

9:00 A. M.; 13 W.

RHETORIC.
Charles Henry Patterson.

A. The Elements of Composition. Grammatical and rhetorical consideration of the word, the sentence and the paragraph. Study of a literary masterpiece. Practice in writing. (A course for beginners in composition.) 9:00 A. M.; 16 W.

B. Composition. (The first college course in rhetoric.) Daily themes, two long papers. Study of a prose masterpiece; class criticisms and conferences; lectures. 10:00 A. M.; 16 W.

C. Shakespearean Readings. The instructor will read six plays to the class. The readings will be open to all members of the Summer School, but a credit of one-half course will be given to those only who do certain assigned reading and make required reports. Some of the plays to be read are Othello, Henry IV, Part 1, Romeo and Juliet, the Taming of the Shrew. Those who think of asking credit should read at least these plays in advance.

Saturday, 8:30 P. M.; C.

THE PSYCHOLOGY OF READING.
Margaret K. Smith.

Lectures and Actual Teaching.

1. The psychology of reading.
2. The processes involved in learning to read.
3. The so-called methods of teaching reading resolved into the synthetic method.
4. Silent reading and reading aloud.
5. Relation of sounds to letters.
6. The speaking voice, and the singing voice.
7. Study of enunciation and articulation.
8. Values of vowel and of consonant sounds.

Illustrations by actual work with classes.

10:00 A. M.; 12 S.

LIBRARY SCIENCE.
Pauline G. Wiggin.

This is an apprentice course, designed to help persons who have charge of small school or town libraries. Students will be assigned in rotation to work in the different departments of the library, ordering, accession, classification, cataloguing, shelf-listing, circulation, etc. Principles and methods will be explained and the work criticized.

SOCIOLOGY.
George Edgar Vincent.

On July 25, 26 and 27, Dr. George E. Vincent, of the University

of Chicago, will give two short courses of lectures in Sociology, as follows:

Old Utopias and Their Modern Meaning.

I. Plato's Republic.
II. More's Utopia.
III. Bacon's New Atlantis.

July 25-27, 3:00 P. M.; 14 M.

Studies in Social Psychology.

I. The Psychology of the Group.
II. Freedom and Responsibility.
III. The Larger Selfishness.

July 25-27, 8:30 P. M.; C.

HISTORY.

Walter Lynwood Fleming.

A. The Civilization of the Greeks. A study of the institutions of the ancient Greeks: religion and philosophy, national religious games and festivals; education, learning, the theatre; sculpture and architecture; social life; occupations; political ideas and institutions; an estimate of Greek influence in later civilizations

8:00 A. M.; 22 W.

B. (1) European Background of American History. A survey of European conditions which form the basis of American history; commerce and trade routes of mediaeval Europe; European industrial conditions leading to the search for new trade routes; the influence of Italy, Portugal and Spain; Old World political institutions and religious differences which influenced the New World; the great commercial and colonizing companies; conditions in England at the time of the departure of colonists.

[Three hours a week, alternating with (2).]

(2) American History and its Geographic Conditions. A study of physical influences in American History; discovery and colonization by the Atlantic states of Europe; influence of the eastern river gateways on colonial development; the Appalachian barrier as a protective bulwark; influence of the Appalachian system on the westward movement; influence of trans-Allegheny environment on the new settlers; development of American sea-power; defense in war of 1812; the westward advance of the frontier; importance of overland routes and trails; scientific boundaries of the United States; problems of communication and transportation; economic and geographical conditions in the slavery struggle and civil war;

distribution and problems of immigration, cities, industries and railroads. [Two hours a week, alternating with (1) above.]

9:00 A. M.; 22 W.

C. Great Events in English History. A survey of the more important events and periods in the history if England, such as the Saxon conquest, the conversion of England, the Norman influence, the charters of liberty, the rise of parliament, mediaeval civilization in England, the Tudor monarchy, the reformation, the puritan revolution, the whig revolution, the development of cabinet government, the expansion of the empire, the revolutionary period, the reform period, the reign of Victoria, England of to-day.

10:00 A. M.; 22 W.

D. Aids in the Study and Teaching of History. The purpose of this course is to examine and criticise the materials available for use in the study and teaching of history, such as (1) the various text-books; (2) historical syllabi; (3) historical notebooks; (4) material for collateral reading (sources and secondary matter); (5) historical geography (maps and atlases and map making); (6) historical illustrations (photographs, facsimilies, drawing, cartoons etc.); originals of documents, relics, etc; (7) publishers' material useful in history classes; (8) books useful for teachers (advanced works and books on methods); (9) historical works for a school library, etc. 11:00 A. M. 22 W.

LATIN.

Alfred Jarrett Hare.

A. Beginning Latin. A course for those who have never studied Latin, and for teachers of elementary Latin who desire to review. The work will be pronunciation, declension, inflection, and easy translations to illustrate forms and the simpler grammatical constructions. Chase and Stuart's First Year in Latin.

8:00 A. M.; 11 M.

B. Cicero. The fourth oration against Catiline and the oration for the poet Archias. The work will include careful translation, grammatical constructions and idioms, and a history of the period at which the orations were delivered.

Prerequisites, Latin 1, 2, 3, 4, and 6.

9:00 A. M.; 11 M.

C. Vergil. The Aeneid, books I. and II. will be read. The work will cover literal and free translation, grammatical construction, text criticism and a comparison with prose construction, metrical reading, and Greek and Roman mythology.

Prerequisites, Caesar and Cicero.

12:00 A. M.; 11 M.

D. Horace. The Odes, books I. and II. Translations, metrical reading, grammar, and a study of the historical biographical, mythological allusions in the text.

Prerequisite, one course of college Latin.

11:00 A. M.; 11 M.

Preparatory credit will be given for courses A, B, and C, and college credit for course D.

FRENCH.

Andrè Bèziat de Bordes.

A. Elementary Course. This course consists of a rapid survey of the essential principles of the French grammar, with abundant drill work in reading, composition and conversation. As much French as possible is used in the class-room from the outset.

Bèziat de Bordes' Elements of French, and François & Giroud's Simple French. 8:00 A. M.; 11 W.

B. Intermediate French. The object of this course is to give students having had at least one year in French grammar and composition an opportunity to gain facility in reading and fluency in conversation and oral understanding. 9:00 A. M.; 11 W.

C. French Literature. This course is given by daily lectures in French, and aims to present as complete a survey as possible of the whole field of French literature. One hour a week is devoted to the discussion of papers by members of the class on special topics referred to in the lectures. These discussions, as well as the papers, may be either in French or in English.

[Should the demand warrant, any French course offered in the general catalogue of the University may be substituted for the above.]

SPANISH.

Andrè Bèziat de Bordes.

A. Elementary Course. Grammar, reading, with abundant practice in oral and written composition.

Loiseaux's Grammar and Reader. Hours to be arranged; 11 W.

GERMAN.

William Michael Baumgartner.

A. Elementary German. (Beginning course). The purpose of this course is to acquaint the student with the elements of the grammar, to give him a reading knowledge of the easiest prose and as much practice as possible in pronunciation.

Essentials of German (Vos). 8:00; 19 W.

B. Elementary German. Intended for students who have had at least six months' work in German. Reading of easy texts. Elementary work in composition, accompanied by a review of the main points of the grammar.

Immensee; Hoeher als die Kirche; L'Arrabiata; Hervey's Exercises to Thomas's Grammar. 10:00; 19 W.

C. Advanced German. This course is intended for students who have had at least one year's work in German. Rapid reading of prose and poetry. Translation of English into German. Discussion of idioms and grammatical points in connection with the translation.

Kinderthraenen (Truscott); German Lyrics (Hatfield) German Composition (Harris). 9:00; 19 W.

CHEMISTRY.
Frederick L. Kortright.

A. General Chemistry. A course treating of the preparation and properties of the more important chemical compounds, and the general laws and theories of chemistry. This course will be especially adapted to the needs of Science and Nature Study teachers. Lectures and recitations 8:00 A. M.; 20 S.

B. Experimental Chemistry. A laboratory course in General Chemistry, in which the preparation and a study of the properties of the more important chemical compounds will be undertaken. Hours to be arranged. 22 S.

C. Qualitative Analysis. A laboratory course treating of the separation and detection of the more common elements. Hours to be arranged. 22 S.

D. Quantitative Analysis. Students registering for this course will be assigned such work as they are prepared to do. Hours to be arranged. 22 S.

Note.—The work in chemistry will be adjusted, so far as possible, to meet the individual needs of the students, and credit will be given in porportion to the amount of work done. The regular laboratory fees, to cover the cost of the material used, will be charged.

MATHEMATICS.
James S. Stewart.

A. Algebra. Milne's Academic Algebra from involution (page 214) to about page 325. 8:00 A. M.; 14 W.

B. Analytic Geometry. Cartesian and polar co-ordinates; properties of conics: circle, ellipse, parabola, and hyperbola. Nichol's Analytic Geometry. 9:00 A. M.; 14 W.

C. Plane Geometry. This course is for beginners or for those who desire to review plane geometry.. Well's Plane Geometry.

10:00 A. M.; 14 W.

D. Plane Trigonometry. Development of formulae, practical exercises and problems. Well's Revised Trigonometry.

11:00 A. M.; 14 W.

Note.—Students desiring other courses in mathematics than those announced above should consult Professor Stewart. An effort will be made to give whatever is called for.

GEOLOGY.

George Perry Grimsley.

During the four weeks beginning July 2, Dr. George Perry Grimsley, Assistant State Geologist of West Virginia, will give the following series of twelve lectures, three each week:

I. The life of the past—a study in geological formations.
II. The geological evolution of the North American Continent.
III. The geological history of West Virginia.
IV. Natural palimpsests, or the story of the rocks.
V. Limestones and lime of West Virginia.
VI. Clays and their products.
VII. The cement age, and its application to West Virginia.
VIII. Coal and its development.
IX. Forty years of petroleum.
X. Liquid and gaseous fuel.
XI. The precious metals—A story of the mines of the golden west.
XII. The buried treasures of a Mountain State, or the mineral wealth of West Virginia.

July 2 to July 28, Monday, Wednesday, Friday; 2:00 P. M.; L.

COOKING.

Mary Arline Zurhorst.

Subjects of Demonstrations.

I. Soups—(a) clear; (b) cream.
II. Meats—(a) new roasts; (b) left over dishes.
III. Salads—(a) two dressings without oil; (b) new salads; (c) accompaniments—cheese straws; cheese balls.
IV. Breads—Yeast.
V. Breads—(a) raisin loaf; (b) finger rolls; (c) muffins; (p) popovers.
VI. Deserts.—(a) rice pyramid; (b) caramel renverse; (c) delicate pudding puff sauce.

VII. Large cakes—(a) watermelon; (b) devil food;(c) economical sponge cake.

VIII. Small cakes—(a) peanut cookies; (b) chocolate bars; (c) nut kisses.

IX. Chafiing dish dainties—(a) chinese eggs; (b) golden buck; (c) curried and deviled mixtures.

X. Emergency luncheon (unexpected guests) (made from leftovers)—(a) salpicon of fruit; (b) American daisy; (c) fish a la creme; (d) timbals; (e) sweet canape.

Fee, three dollars for the ten demonsrations; payable in advance.

Monday, Wednesday, and Friday, 1:30 to 3:30 P. M.; 21 M.

THE SCHOOL OF MUSIC.

Ross Spence, Director.

Instructor of Violin.

John PorterLawrence,

Instructor on the Piano and Organ.

Director of the piano department in the National Park Seminary; organist at the New York Avenue Presbyterian Church, Washington, D. C.; representative of Washington at the Buffalo Pan-American Exposition concerts. He has had extensive experience in teaching; studied for four years at Leipzig, Germany, where he took the Helbig prize.

Grace Martin Snee

Instructor on the Piano.

Member of the School of Music faculty.

Alexander Stewart Thompson.

Instructor in Voice Culture and Public School Music.

Member of the School of Music faculty.

Anton Kaspar.

Instructor of Violin.

Concert Master of the Georgetown Orchestra, Washington, D. C. A Bohemian by birth; studied in Prague under the renowned Master Bonnewitz, teacher of the great violinist Kocain. Later he studied under Malo and Remy, two of the most celebrated violinists in Paris.

Historical Lecture Recitals.

Six of these recitals will be given during the Summer School, when the faculty will give lectures and programs, taking a great composer for each recitol. These recitals will be given conjointly by the faculty and will be free.

RATES OF TUITION.

Piano.

John Porter Lawence.

Six weeks' course, three private lessons a week.....$25.00
(30 minutes each.)

Grace Martin Snee.

Six weeks' course, three private lessons a week for children, $10.00
(30 minutes each.)

Organ.

John Porter Lawrance.

Six weeks' course, three private lessons a week.....$30.00
(30 minutes each.)

Voice.

Alexander Stewart Thompson.

Six weeks' course, three private lessons a week.....$25.00
(30 minutes each.)

Violin.

Ross Spence.

Anton Kaspar.

Six weeks' course, three private lessons a week.....$25.00
(30 minutes each.)

Mandolin, Guitar and Banjo.

Anton Kaspar.

Six weeks' course, three private lessons a week.....$15.00
(30 minutes each.)

Public School Music.

Alexander Stewart Thompson.

Six weeks' course, three class lessons a week.....$ 2.00
Minimum number in class, 25.)

Pianos for Practice.

One hour per day for six weeks, $2.50.
Two hours per day for six weeks, $4.00.
Three hours per day for six weeks, $5.00.
Clavier practice for six weeks, one hour per day, $1.00.
Organ practice twice the cost of piano practice.

All tuition and other fees are payable in advance. Sheet music provided for the cost of handling. Students can enter at any time; a slight reduction will be made for the time not taken in the full course.

For further information concerning the School of Music, write to Ross Spence, Director, Morgantown, W. Va.

SCHOOL OF METHODS FOR SUNDAY SCHOOL WORKERS.

The third session of the School of Methods for Sunday School Workers will be held at West Virginia University from June 29 to July 7, 1906. As usual it will be held in connection with the University Summer School, but neither interferes with the other; indeed each is great benefit to the other.

No tuition fee is charged. A registration fee of one dollar is charged but students registered in the regular Summer School are not required to pay even this nominal fee.

The purpose of the School of Methods is to give pastors, Sunday School superintendents and teachers an opportunity to be instructed in the most modern principles and methods of Sunday School work by some of the leading Sunday School workers of America.

INTERNATIONAL RECOGNITION.

The International Department of Education will grant certificates to students according to the following standard:

A. Attendance of the student for at least 15 hours of the work.

B. Recommendation by the management of the school, based upon approval of note-books, or such other examination as they may require

Attendance at the study hour will have weight with the management of the school in recommending students for recognition.

Registration.

Friday, June 29 is registration day, when it is desirable that all pupils enroll; but the registration officers will be available at reasonable hours during the week following.

Program.

It will be noticed that there is a very definite scheme in this program and that the same plan runs through every day. The hour from 9:00 to 10:00 is left open to give opportunity to attend Miss Griswold's observation classes; then comes Sunday School music; then the discussion of questions of practical relation to teacher and pupil; then at 11:00 o'clock Dr. McFarland conducts a Bible Study; from 2:00 to 3:00 every day is the study hour; at 3:00 o'clock there is a more or less formal lecture on some definite subject; from 4:00 to 5:00 there are department work conferences; at 7:45 there is a sunset meeting under the beautiful trees of the campus; and the day closes with a lecture on a subject of more or less popular interest. This plan runs through every day.

The lectures at 8:30 P. M. will be held in Commencement Hall and will be open to the public. The other lectures and exercises will be held in the Y. M. C. A. Hall and will be open only to registered students.

All students are requested to provide themselves with note books.

Friday Afternoon, (June 29.)

3:00 to 4:00 Lecture: Ethical and Civic Significance of Sunday School Work.....President D. B. Purinton

4:00 to 5:00 Conference: County Problems versus City Problems .....Dr. C. Humble

8:30 Stereopticon Lecture on Palestine.—Special Music.....
.....W. C. Shafer

Saturday.

Excursion to Cheat River Canyon.

Saturday Evening.

8:30 Convocation Address: The Higher Values.....
.....Dr. J. T. McFarland

Sunday Morning.

Specialists will visit the various Morgantown Sunday Schools.

Sunday Afternoon.

8:00 Field Day Rally in Commencement Hall, conducted by Dr. J. T. McFarland.

Monday Morning.

9:00 to 10:00 Observation Classes.....Sarah E. Griswold

10:00 to 10:20 Sunday School Music....Professor A. S. Thompson
10:20 to 11:00 The Teacher's Preparation.....
.....Professor Thomas E. Hodges
11:00 to 11:45 Bible Study.....Dr. J. T. McFarland

Monday Afternoon.

2:00 to 3:00 Study Hour.
3:00 to 4:00 Lecture: The Spiritual Side of the Teacher's Work .....Marion Lawrance
4:00 to 5:00 Sectional Conferences—
(1) Elementary .....Martha V. Graham
(2) Sunday School Organization, equipment, and grading .....Marion Lawrance
7:45 Sunset meeting (on the campus).
8:30 Lecture: The Big Boy and How to Deal With Him
..... Marion Lawrance

Tuesday Morning.

9:00 to 10:00 Observation Classes.....Sarah E. Griswold
10:00 to 10:20 Sunday School Music.....Dr. W. H. Doane
10:20 to 11:00 The Teacher Teaching.....Dr. C. Humble
11:00 to 11:45 Bible Study.....Dr. J. T. McFarland

Tuesday Afternoon.

2:00 to 3:00 Study Hour.
3:00 to 4:00 Lecture: The Art of Illustration.....
..... Marion Lawrance
4:00 to 5:00 Sectional Conferences—
(1) Intermediate .....Sarah E. Griswold
(2) The Sunday School Session—Officers and Their Duties .....Marion Lawrance
7:45 Sunset meeting (on the campus).
8:30 Lecture: The Old Book and the New Man.....
.....Dr. J. T. McFarland

Wednesday Morning.

9:00 to 10:00 Observation Classes.....Sarah E. Griswold
10:00 to 10:20 Sunday School Music.....Dr. W. H. Doane
10:20 to 11:00 Teacher and Pupil.....Miss Martha V. Graham
11:00 to 11:45 Bible Study.....Dr. J. T. McFarland

Wednesday Afternoon.

2:00 to 3:00 Study Hour.
3:00 to 4:00 Lecture: Collateral Opportunities and Responsibilities of the Teacher.....Dr. J. T. McFarland

4:00 to 5:00 Sectional Conferences—
(1) Senior.....Professor J. N. Deahl
(2) Sunday School Problems.....Dr. R. S. Holmes
7:45 Sunset Meeting (on the campus).
8:30 Lecture: Theory and Conditions.....Dr. R. S. Holmes

Thursday Morning.

9:00 to 10:00 Observation Classes.....Sarah E. Griswold
10:00 to 10:20 Sunday School Music.....W. H. Doane
10:20 to 11:00 Child Study.....Rev. L. E. Peters

Thursday Afternoon.

2:00 to 3:00 Study Hour.
3:00 to 4:00 The Law of the Teacher.....Dr. R. S. Holmes
4:00 to 5:00 Sectional Conferences—
(1) Men's Classes.....Professor Thos. E. Hodges
(2) The Home Department.....Dr. J. T. McFarland
7:45 Sunset Meeting (on the campus).
8:30 Lecture: The Preservation versus the Rescue of the Child .....Dr. J. T. McFarland

Friday Morning

9:00 to 10:00 Observation Classes.....Sarah E. Griswold
10:00 to 10:20 Sunday School Music....Professor A. S. Thompson
10:20 to 11:00 Laws of Child Growth.....Dr. Margaret K. Smith
11:00 to 11:45 Bible Study.

Friday Afternoon.

2:00 to 3:00 Study Hour.
3:00 to 4:00 Lecture: The Best Methods for Local Teacher Training .....Dr. J. T. McFarland
4:00 to 5:00 Sectional Conferences—
(1) Training Classes.....Rev. L. E. Peters
(2) Organized Sunday School Work.....W. C. Shafer
7:45 Sunset Meeting (on the campus).
8:30 Lecture: The Law of the Superintendent.....
.....Dr. R. S. Holmes

XII. THE COMMERCIAL SCHOOL.

THE FACULTY.

DANIEL BOARDMAN PURINTON, LL.D., President.

DENNIS MARTIN WILLIS, A.B., LL.B., Principal.

ELIZABETH LEE WHITESCARVER, Instructor in Stenography and Typewriting.

P. B. REYNOLDS, Ph.D., Professor of Economics and Sociology.

THOMAS CLARK ATKESON, Ph.D., Dean of the College of Agriculture and Professor of Agriculture.

WILLIAM P. WILLEY, A.M., Professor of Commercial Law.

SAMUEL B. BROWN, A.M., Professor of Geology and Mineralogy.

JAMES MORTON CALLAHAN, Ph.D., Professor of History and Political Science.

CHARLES H. PATTERSON, A.M., Professor of Rhetoric.

WALTER L. FLEMING, Ph.D., Professor of History.

SIMEON CONANT SMITH, A.M., Instructor in Rhetoric.

DAVID DALE JOHNSON, A.M., Assistant in English.

WILLIAM H. WHITHAM, B.S., A.M., Assistant in Physics and Geology.

THE COMMERCIAL SCHOOL

The purpose of this school is to meet the increasing demand of the business world for efficient young men, to take the middle places in the control of large business institutions,—as managers, superintendents, heads of departments, and private secretaries,—of whom a certain initiative is demanded, and on whom is placed a certain amount of responsibility. It aims to prepare young men to start in business with the advantages of a trained mind and a scientific knowledge of modern business methods and conditions.

The rapidly changing character of modern industrial processes, and the magnitude and complexity of business enterprises, create a demand for a different course of study from that given in the tradi-

tional college course, offered in the universities of the country. The demands made of the modern business man with respect to his political and official duties are such, and that he needs a training of the very highest order, combined with a thorough knowledge of the exact and applied sciences and their relations to commerce and industry.

Courses of instruction are offered in subjects which seem to be of special importance in preparing young men for business careers, —particularly, such careers as arise in connection with transportation, insurance, banking, etc. An effort has been made in the arrangement of the curriculum to combine, as far as possible in the space of two years, a generous amount of the broad general culture of the college course, with a knowledge of economic laws in relation to the various departments of trade, commercial and industrial organization, accounting, etc., and also to give an opportunity to acquire a knowledge of a particular trade or calling.

The instruction in the Commercial School is given in connection with the work done by the professors in the other departments of the University, the curriculum being articulated with the other courses.

FEES.

Tuition is free to West Virginia students. To students from other States, the tuition in the Commercial School is $5.00 per quarter—twelve weeks.

The matriculation fee is $5.00, payable by all students upon entering the University. Unless a student remains out of the school for more than three years the matriculation fee is paid but once by each student.

The contingent fee of $3.00 for each quarter, is payable at the beginning of the quarter.

A typewriter fee of $1.00, payable at the beginning of each quarter, is charged each student for the use of the typewriter during the quarter.

The total University charge during the first quarter for students from West Virginia in the Commercial School amounts to $8.00, and each succeeding quarter $3.00. State cadets are furnished with books, stationery, and uniforms, free, and are not required to pay the matriculation or contingent fees.

ENTRANCE REQUIREMENTS.

The requirements for admission to the commercial course are twenty-two preparatory courses, of which, six courses in English, three courses in mathematics, one course in physical geography, one course in book-keeping, one course in drawing, two courses in his-

tory, and one course in civil government are prescribed; the remaining seven courses are elective.

THE COMMERCIAL COURSE.

A Diploma of Graduation is granted any student who satisfies all entrance requirements and satisfactorily completes the twenty-two college and technical courses prescribed, as follows:

Department Subject	Number	Courses Credit
English:—		
Composition and rhetoric	7	1
English literature	8	1
English literature	9	1
Composition	10	1
Rhetoric	11	1
Accounting:—		
Accounting practice	2	1
Accounting and office work	3	1
Corporation accounting	5	1
Economics:—		
Principles of economics	1	1
Distribution of wealth	2	1
Money and Banking	4	1
Public Finance:	5	1
Commercial Law:—		
Law of Contracts	1	1
Negotiable Paper	2	¼
Law of sales	3	½
Partnership	4	½
Bailments and Carriers	5	½
Suretyship and Guaranty	6	¼
History:—		
Commercial geography	1	1
History of commerce	2	1
History and Political Science	35	1
Approved electives:—		4
Total		22

The electives may be chosen from any of the courses in the University which the student is qualified to enter, subject to the advice and consent of his class officer.

STENOGRAPHIC COURSE.

The aim of this course is to furnish a thorough, practical knowledge of stenography. The entrance requirements to this course are fifteen preparatory courses, of which, six courses in English are prescribed and the remaining nine courses are elective.

A certificate is granted any student who satisfies all entrance requirements and completes satisfactorily the following prescribed courses: English, three courses, accounting, two courses, stenography, three courses, and typewriting, three courses.

SPECIAL COURSES.

Students from the other departments of the University are permitted to make arrangements by which they can take special courses in stenography, typewriting, accounting, etc., without additional fees.

DEPARTMENTS OF INSTRUCTION.

The studies that are taught in this department are the only courses described here. See the announcements of the Preparatory School and the College of Arts and Sciences for a description of the culture courses.

ACCOUNTING.

Mr. Willis.

1. Elementary Business Practice. The object of this course is to lay a solid foundation in the study of accounting as a science. Every facility is offered the student to gain a knowledge of the elements of single and double entry accounts; the use of books of original entry; the use of ledgers and books of permanent record; the use of trial balances; abstracts of single entry accounts; the methods of detecting and correcting errors in books of original entry, ledgers, etc.; the use and method of ruling, etc.; the methods of closing single and double entry ledgers. The teaching in this course is accompanied by constant drill in the application of established rules. Fall, Winter, Spring, 8:30; 12 M.

2. Accounting Practice. An introductory course consisting of business practice; extensive drills in the use of vouchers, files; journalizing, posting, etc. In this course, the student familiarizes himself with all the elementary rules and fundamental principles of book-keeping; is engaged as a bill clerk, shipping clerk, warehouse-

man, secretary and bookkeeper for a firm doing a merchandise business. Prerequisite, Accounting 1.

Fall, Winter, Spring, 8:30; 12 M.

3. Accounting and Office Work. A continuance of course two. The student becomes a member of the firm, and general manager and bookkeeper; frequent drills in making inventories; statements of resources and liabilities, financial statements, balances and balance sheets, etc; writing articles of agreement, deeds, mortgages, bills of sale, etc.; adjustment of losses and settlements with insurance companies; changing the firm and the kind of business, etc.; and changing from double to single entry bookkeeping. Prerequisites, Accounting 1 and 2. Fall, 9:30; 12 M.

4. Special Accounting. A theoretical course in keeping accounts in special lines of business as lumber, shipments and consignments, installments, etc. The object of this course is to familiarize the student with the technical terms, of various lines of business, and to furnish him with a practical working knowledge of the accounts necessary to handle speci,fic lines of trade. Department store accounting is a special feature of this course. The work outlined in the text books to be done by the student has been taken from actual accounts kept in the different kinds of business mentioned. Prerequisites, Accounting 1 and 2.

Winter, 9:30; 12 M.

5. Corporation Accounting. The formation of a corporation and its operation; the records of the secretary and the accounts growing out of the minutes, etc.; the accounts affected by issuing certificates of stock, their transfer, their surrender; additional stocks, dividends, changing from partnership into corporations, etc.; methods of preparing for publication financial statements, etc. Prerequisite, Accounting 3. Spring, 9:30; 12 M.

6. Accounting Procedure. Installation of accounting systems; exposition of the modern counting house methods and business practices; theory of accounts and its adaptability in practical work; accounts which give the business man at a glance the commercial rating to which the creditor is entitled; books of original entry; analysis of accounts of trades, corporations, executors, etc.; depreciation of current assets; liabilities; fixed and working capital; expert methods of opening and closing accounts in various lines of trade; realization and liquidation of accounts; statements of affairs of insolvent debtors; statements establishing commercial rating and credit; a consideration of personal and impersonal accounts; methods of combining accounts for quick and accurate consideration of the condition of the business, etc. Winter, 10:30; 12 M.

7. Bank and Trust Company Accounting. A complete exposi-

tion of the methods of accounting which relate, principally, to banks and trust companies. A short, complete course is given in the details of bank-bookkeeping, illustrating the various forms and blanks used in up-to-date banks. The accounting of the trust company as agent, trustee, and underwriter, is illustrated and exemplified. In connection with the lectures in this course, blanks and forms collected from the best regulated banks and trust companies in the country, are examined by the students. Prerequisite, Accounting 3. One-half course. Winter, 11:30; 12 M.

8. Executors and Trustees. Financial reports of executors and trustees; the legal rights and duties of trustees and executors as they relate to accounting; the vouchers necessary for an executor; cases in which the vouchers may be excused; the proper accounting methods of executors and trustees; apportionment between the principal and income at the initiatory stage of an estate; the termination of a beneficiary's interest; difference between the accounting of an executor and a proprietor; executor's accounts by both single and double entry; the three divisions of accounts and the significance of each; the various kinds of estates and how treated; the disposition of personal and real property; what a trustee can do and what he can not do from an accountant's standpoint. Prequisite, Accounting 2. One-half course. Spring, 11:30; 12 M.

9. Practical Banking. The object of this course is to give the student a comprehensive knowledge of the inside workings of a bank, and of the laws regulating the national and state banks. The subjects treated are depositors, resources, loans and discounts, circulating notes, credit and commercial paper, accommodation paper, checks and bills of exchange, branch banking, the duties of officers and clerks, the liabilities of officers, directors and stockholders, and bank management in general. An effort will be made to have some special lectures by experienced bankers in connection with this course. Prerequisite, Accounting 3. Spring, 11:30; 12 M.

10. Corporation and Trust Company Finance. An exposition of the financial organization and conduct of large corporations; the accounting necessary in railroad and industrial combinations and mergers; a review of the laws and customs that govern the financial management of foreign corporations; the proper basis for the capitalization of a corporation; legislation affecting the financial affairs of corporations; the various forms of incorporations adopted by industrial companies; the advantages to the corporations of the various classes of bonds and stocks; the relations of subsidary companies and corporations; receiverships, bankruptcy, and reorganization. Prerequisite, Accounting 7. Winter,11:30; 12 M.

COMMERCIAL GEOGRAPHY, AND HISTORY OF COMMERCE.

Professor Atkeson.

1. Commercial Geography. A description of the surface of the earth, with special reference to the production, manufacture, transportation, and exchange of articles of trade. A general outline of the countries of the world: soil, climate, agricultural products, forests, manufactories, quarries, mines, centers of industry, foreign relations, ways of communication, social relations and conditions, imports, exports, and markets. Special attention is given to the study of the United States: area, climate, position, population, natural resources, raw products, manufactures, waterways, railways, seaports, exports, imports, reasons for rapid growth of western cities, industrial possibilities. Text-book, Adams' Commercial Geography.
Fall, 11:30; 6 M.

2. History of Commerce. History of commerce; methods of exchange in ancient times; shipping of the ancients; fairs and markets; results of maritime discoveries; changing the commercial routes; international treaties affecting commerce; scientific and industrial discoveries affecting commerce; trade restrictions; consuls and modern commerce; boards of trade; stock and produce exchanges; modern modes of preparing and shipping articles of merchandise; circulation of commodities between cities and countries; trade statistics; dependence of manufactures upon producers of raw material; nomenclature of commerce. Text-book, Adams' History of Commerce.
Winter, 11:30; 6 M.

COMMERCIAL LAW.

Professor Willey.

1. Law of Contracts. The elements of a contract and the consideration; contracts under seal, contracts of record, oral and written contracts; implied from express ones, implied as a fact; estoppel as a species of contract; mutual assent; interpretation of the contract; law, custom, usage, as elements in the contract; law and fact as to parties' knowledge or ignorance thereof; constitutional protection; the impossible in law and fact; fraud, mistake, and duress; altering a written contract; election and waiver; recision and ratification; time and place; breach and performance of contract.
Fall, 9:30; 26 W.

2. Negotiable Paper. Negotiability; distinction between negotiability and assignability; negotiable bills and notes, and their formal and essential requisites; acceptances of bills of exchange; indorsement; nature of the liabilities of the parties; transfer; de-

fences commonly interposed against a purchaser without notice; presentment and notice of dishonor. One-fourth course.

Winter, 9:30; 26 W.

3. Law of Sales. A complete exposition of the laws governing and regulating sales; formation of the contract, effect of the contract in passing the property; sale of chattels; mistake; failure of conditions and warranties; specific performance of contract; rights of unpaid sellers against the goods; rights resulting from breach of contract, etc. One-half course. Spring, 9:30; 26 W.

4. Partnership. Definition and nature; how made; partners—purposes and kinds; liabilities as to third party; rights and duties among themselves; remedies inter se against third party; the law regulating the property of; bankruptcy and insolvency; limitations of; joint stock companies; etc. One-half course.

Spring, 9:30; 26 W.

5. Bailments and Carriers. Bailments in general; the bailee's benefit; without benefit; sale benefit, material benefit; common carriers,—nature and relation of common carriers; what constitututes a bailment to carrier; responsibility of common carrier; usage, special contract, and legislation affecting responsibility of carriers; termination of responsibility; rights; remedies against and for carriers; connecting carriers; interstate commerce act; carriers of passengers,—preliminary matters, duties and rights incidental to journey, termination of journey, transportation of baggage. One-half course. Winter, 9:30; 26 W.

6. Suretyship and Guaranty. A short course providing a treatment of contract; statute of frauds; liabilities after discharge of principal; accommodation parties and blank indorsers; notice and demand; rights of surety; subrogation; discharge of surety by payment, change of contract, misrepresentation, etc.; sureties on obligation given in the course of administration of justice, etc. One-fourth course. Winter, 9:30; 26 W.

STENOGRAPHY.

Miss Whitescarver.

1. Theory. This course includes the basis and fundamental principles of the art. Special attention is given to accuracy in the execution of the consonants. Thorough drills are given in the use of vowels and vowel positions. Introduction of word signs and special phrasing from day to day, and cumulative principles, modifications of consonants and affixes, as outlined in Dement's Pitmanic Shorthand. Prerequisite, English 3.

Fall,, 8:30; Winter, 9:30; Spring, 10:30; 30 M.

2. Cumulative Phrasing. This course is a continuation of

course 1. Cumulative principles and affixes are introduced in their natural order. Following this, cumulative phrasing, which consists in the indication of the omission of words by special use of the principles given in course 1. Special contractions and special phrasing, etc. This work will be presented in the order in Dement's Pitmanic Shorthand.

Fall, 10:30; Winter, 8:30; Spring, 9:30; 30 M.

3. Speed Practice and General Dictation. Letter writing, speed practice, and writing after general dictation. Writing testimony and argument is a special feature in this course. Special attention is given to each student in this course in order to prevent speed practice from destroying accuracy of notes, etc. Most of the dictation and reading exerciss are to be found in Dement's Dictators, Nos. 1 to 7. Fall, 9:30; Winter, 10:30; Spring, 8:30; 30 M.

4. Court Reporting. This is a special course in court reporting for students who have completed courses 1, 2, and 3. This work is given in connection with the moot courts in the College of Law. The student is appointed court stenographer by the judges of the court, and reports the case tried in that court and in the justices' court of the same department. Duplicate reports are submitted for inspection. This gives the student actual practice in court reporting, as required by the West Virginia law. In addition to this actual practice, daily drills are given to acquire speed in writing and transcribing testimony, etc. Brown's Court Reporting is used as a text-book.

TYPEWRITING.

Miss Whitescarver.

1. Typewriting. The Smith Premier machine is used for instruction and practice. The instruction includes thorough drills on the various exercises outlined in the text. This furnishes the student with a knowledge of the mechanism of the machine, which is essential in its adjustment. Text-book, Barnes Touch Typewriting.

Fall, Winter, Spring, 8:30 to 12:30; 30 M.

XIII. THE PREPARATORY SCHOOLS.

THE PREPARATORY SCHOOL AT MORGANTOWN.

THE FACULTY.

ALFRED JARRETT HARE, A.M., Principal, and Professor of the Latin Language and Literature.

SIMEON CONANT SMITH, A.M., Assistant in English.

BERTHA CLELAND BROWNING, A.M., Assistant in Mathematics.

DAVID DALE JOHNSON, A.M., Assistant in English.

DRUSILLA VICTORIA JOHNSON, A. M., Assistant in Greek and Mathematics.

Other Instructors Giving Courses in This School.

ALEXANDER REID WHITEHILL, Ph.D., Professor of Chemistry.

FREDERICK WILSON TRUSCOTT, Ph.D., Professor of Germanic Languages and Literatures.

JOHN BLACK JOHNSTON, Ph.D., Professor of Zoology.

JAMES MADISON BURNS, Major U. S. Army, Professor of Military Science and Tactics and Commandant of Cadets.

HENRY SHERWOOD GREEN, LL.D., Professor of the Greek Language and Literature.

ANDRE BEZIAT DE BORDES, Ph.D., Professor of Romance Languages and Literatures.

JOHN NATHAN SIMPSON, M. D., Professor of Anatomy and Physiology.

WALTER LYNWOOD FLEMING, Ph. D., Professor of History.

WILLIAM JACKSON LEONARD, Associate Professor of Fine Arts.

CHARLES COLLIER HOLDEN, A.B., Instructor in Romance Languages.

THOMAS CARSKADON JOHNSON, B.S., Agr., A.M., Instructor in Botany.

WILLIAM MICHAEL BAUMGARTNER, A.B., Instructor in German.

WILLIAM HENRY WHITHAM, A.M., Assistant in Physics and Geology.

INFORMATION.

This is distinctly a preparatory school and aims primarily to prepare young men and young women for the freshman class of the University. The course of study is such, however, that any one who has successfully completed it will have received a fairly liberal education.

Thoroughness is imperatively insisted upon in every department and the quality of the work rather than the quantity thereof is uniformly demanded. The standard of scholarship is such that only young people of studious habits, reasonably fair ability, and a willingness to work should seek admission. A young man or woman who has a record of failure in other schools is not likely to succeed here. For rules governing scholarship, see, under College of Arts and Sciences, page 53.

Candidates for admission must be at least fifteen years of age and should have a good knowledge of the branches taught in the public schools of the State. They should be prepared to pass a creditable examination in reading, spelling, writing, geography, English grammar, and arithmetic. Applicants for admission from an accredited preparatory school will receive credit for work done in such school upon the presentation of a correct application blank properly filled out and signed by the head of such school, but hereafter no credit will be given for arithmetic.

The discipline is mild and reasonable but firm. Young people who do not choose to study and to deport themselves as ladies and gentlemen will be summarily dismissed. The preparatory department is not a reform school.

Special pains are taken by the principal and his assistants to render the school life valuable and pleasant to those who are under their care. Preparatory students have all the advantages of the University library, lectures, cadet corps, gymnasium, athletic grounds, etc. No better place can be found in the state for pleasant, thorough, intellectual work.

DEPARTMENTS OF INSTRUCTION.

BOTANY.

Mr. T. C. Johnson.

For announcement of courses in Botany see College of Arts and Sciences under Departments of Instruction.

CHEMISTRY.

Professor Whitehill.

Courses 1, 2, and 3 may be offered for credit in the Preparatory

School. For further announcement of these courses, see College of Arts and Sciences under Departments of Instruction.

ENGLISH.

Mr. D. D. Johnson and Mr. Smith.

1. Grammar and Composition. This, with the following course, involves a practical drill in orthography, punctuation, and the principles of grammar. Composition work is based upon the reading and study of selections from some American authors.

Fall, 9:30; Mr. Johnson, 10 M.

1a. Grammar and Composition. This course is of the same general character as the preceding but is intended especially for those who enter the school in the winter or spring terms, and who wish to make up deficiencies in English. (Not given unless ten or more students enter the class.)

Winter, Spring, 8:30; Mr. Johnson, 10 M.

2. Grammar and Composition. Continuation of course 1.

Winter, 9:30; Mr. Johnson, 10 M.

3. Elementary Rhetoric and Composition. In this and the two following courses, careful drill in reproduction and original composition is continued. In each course one of the English or American classics is studied closely. Exercises in oral composition, in writing paraphrases and amplifications, in the meaning and use of words, and in construction of sentences and paragraphs, are based on the reading. Spring, 9:30; Fall, 8:30; Mr. Johnson, 10 M.

4. Elementary Rhetoric and Composition. Continuation of course 3. Fall, 10:30; Winter, 8:30; Mr. Smith, 13 W.

5. Elementary Rhetoric and Composition. Continuation of course 4. Winter,10:30; Spring,8:30; Mr. Smith, 13 W.

6. Composition and Rhetoric. In this, and the following course, careful drill in composition is continued, embracing a study of the sentence, the paragraph, and the theme; and of diction, the figures of speech, and the important forms of prose and poetry. In each of these courses one of the English or American classics is studied closely in class, and book reviews and outlines are prepared of other required readings. Some attention is paid to the review of grammatical principles and to the history of the English language.

Spring, 10:30; Fall, 8:30; Mr. Smith, 13 W.

7. Composition and Rhetoric. Continuation of course 6.

Fall, 10:30; Winter, 11:30; Mr. Johnson, 10 M.

8. English Literature. Courses 8 and 9 are devoted to the teaching and study of some of the English classics prescribed in the college entrance requirements. So far as practicable this work

in literature is made to illustrate and enforce the knowledge already gained from the study of rhetoric. Critiques and reviews are continued in this and the following course.

Winter, 10:30; Spring, 11:30; Mr. Johnson, 10 M.

9. English Literature. Continuation of the preceding course.

Spring, 10:30; Fall, 11:30; Mr. Johnson, 10 M.

Note.—Students will not be admitted to courses 8 and 9 until they have credit for all the preceding courses.

FRENCH.

Professor Bèziat de Bordes and Mr. Holden.

Courses 1 to 6 may be offered for credit in the Preparatory School. For detailed announcement of these courses see College of Arts and Sciences under Departments of Instruction.

SPANISH.

Professor Bèziat de Bordes.

Courses 1, 2, and 3 may be offered for credit in the Preparatory School. For detailed announcement of these courses see College of Arts and Sciences under Departments of Instruction.

GERMAN.

Professor Truscott and Mr. Baumgartner.

Courses 1 to 6 may be offered for credit in the Preparatory School. For detailed announcement of these courses see College of Arts and Sciences under Departments of Instruction:

GREEK.

Professor Green and Miss Johnson.

Courses 1 to 6 may be offered for credit in the Preparatory School. For detailed announcement of these courses see College of Arts and Sciences under Departments of Instruction.

HISTORY AND CIVICS.

Professor Fleming.

The following courses are intended to present a general outline of the field of history and to furnish a suitable introduction to the college courses in history. The course in civics gives a part of the preparation required of students who desire admission to the college courses in political science. [Preparatory students are advised not to take more than one course in history or civics in one term.]

1. History of Greece. An outline study of Greek history with special reference to the development and peculiar characteristics of Greek civilization. Fall, 8:30; 2 M.

2. History of Rome. An outline study of Roman history from the founding of Rome to 476 A. D. Winter, 8:30; 2 M.

3. Mediaeval and Modern History. A general survey of the history of western continental Europe from the break-up of the Roman Empire to the present time. Hours to be arranged; 2 M.

4. History of England. An outline of English History from the earliest times to the present. The founding, unfolding, and expansion of the English nationality, and the growth of English institutions. Fall, 11:30; Professor Fleming, 22 W.

5. Outlines of United States History. A general course of narrative and political history required for admission to all college courses in United States history.
Winter, 11:30; Professor Fleming, 22 W.

6. Civics. West Virginia and the Nation. This course presents an outline of (1) the government of West Virginia; (2) the structure of the Federal government and the methods of governing under it; and (3) the rights and duties of American citizens. Prerequisite, course 5. Spring, 11:30; Professor Fleming, 22 W.

Note.—Mr. Ira F. Nestor has been the student assistant in English and American history for the year 1905-06.

LATIN.

Professor Hare.

1. Etymology. Chase and Stuart's First Year in Latin, pages 9-125. Fall, 8:30 and 11:30; Spring, 8:30; 11 M.

2. Syntax. Chase and Stuart's First Year in Latin, pages 126-180. Winter, 8:30 and 11:30; 11 M.

3. Oratio Obliqua, and Caesar (Book I., Chs. 1-29). Chase and Stuart's First Year in Latin, completed. Spring, 11:30; 11 M.

4. Caesar's Gallic War (Books I. and II.) Fall, 10:30; 11 M.

5. Caesar's Gallic War (Books III. and IV.).
Winter, 10:30; 11 M.

6. Cicero's Orations against Catiline ,I., II., and III.
Spring, 10:30; 11 M.

7. Cicero's Fourth Oration against Catiline, the Oration for Archias, and the Aeneid of Virgil, (Book I.) Fall, 9:30; 11 M.

8. Virgil's Aeneid (Books II., III., and IV.)
Winter, 9:30; 11 M.

9. Virgil's Aeneid (Books IV., V., and VI.)

Spring,, 9:30; 11 M-

Latin Composition is required once a week in courses 7, 8, and 9.

Allen and Greenough's Latin Grammar, revised edition is used in courses 4-9.

The prerequisite for any course is each of the preceding courses.

MATHEMATICS.

Miss Browning and Miss Johnson.

Algebra.

1. Algebra, to Highest Common Divisor. Milne's Academic Algebra to page 115.

Fall, 10:30;, Spring, 8:30; Miss Browning, 3 M.

2. Algebra, to Involution. Milne's Academic Algebra to page 214. Winter, 10:30; Miss Browning, 3M.

3. Algebra, to Ratio and Proportion. Milne's Academic Algebra to page 325.

Spring, 10:30; Fall, 11:30; Miss Browning, 3 M.

A second section of Algebra 1, 2, and 3 is arranged for when the class is large. Miss Johnson, 7 M.

4. Algebra. Simple equations, discussion of problems, zero and infinity, inequalities, involution, theory of exponents, radicals, quadratic equations, arithmetical and geometrical progressions, to undetermined coefficients. Well's University Algebra, pages 103-304. Fall, Spring, 8:30; Miss Browning 3 M.

Geometry.

5. Plane Geometry, Rectilinear Figures, and the Circle. Well's Plane Geometry, Books I, and II. Fall, 9:30; Miss Browning, 3 M.

6. Plane Geometry, completed... Well's Plane Geometry, Books III. to V. Winter, 9:30; Miss Browning, 3 M.

PHYSICS.

Mr. Whitham.

1. Elementary Physics. Recitations, supplemented by experiments and laboratory exercises. One exercise per week at least will be devoted to individual laboratory work. Rowland and Ames' Elements of Physics. Prerequisite, Plane Geometry 1.

Fall, 8:30; 11 S.

2. Elementary Physics. Continuation of course 1.

Winter, 8:30; 11 S.

Courses 1 and 2 will satisfy the entrance requirements in physics. For more detailed statement as to these courses see pages 91 and 92.

PHYSICAL GEOGRAPHY.

Mr. Whitham.

Elementary Course. Credit for this course is given only as a preparatory course. Fall, Spring, 10:30; 30 S.

PHYSICAL TRAINING.

Professor Chez and Mrs. Chez.

For the announcements of work in physical training for both men and women, see page 93.

By an order of the regents, physical training is required of all young men in the Preparatory School in the fall term of each year.

PHYSIOLOGY.

Dr. Simpson.

1. **Elementary Physiology.** Fall, Spring, 9:30; 2 W.
2. **Elementary Physiology.** Continuation of course 1. Winter, 9:30; 2 W.

ZOOLOGY.

Professor Johnston.

1, 2, and 3. General Zoology. The aim of these courses is to acquaint the student with the chief types of animal structure and with the general principles of biology. Lectures and laboratory work.

Fall, Winter, Spring, Monday and Wednesday, 10:30; 17 W.

THE PREPARATORY SCHOOL AT MONTGOMERY.

EXECUTIVE COMMITTEE.

C. E. HAWORTH .....Chairman
THOMAS C. MILLER .....Secretary
D. C. GALLAHER .....Treasurer

THE FACULTY.

JOSIAH KEELY, A. M., Principal, (A. B. West Virginia University, A. M. Harvard University) Mathematics and Drawing.

G. W. CONLEY, A. B., (West Virginia University) Latin and Physics.

MABELLE SCOTT, B.S., (E. A[illegible] Seminary, Missouri.) History.

HARRIET CUTTS, A.B., (West Virginia University) Geography and Algebra.

MARION F. CABELL, French and Music.

GENERAL INFORMATION.

The Preparatory School of the West Virginia University at Montgomery, in Fayette County, was established under the provision of an act of the legislature, passed February 15, 1895. The Montgomery heirs donated two acres of ground for the erection of suitable buildings, and the school was opened to students on January 4th, 1897.

The state superintendent of schools and two regents chosen from among the regents of the University exercise control, though the entire board may decide upon matters of importance.

The course of study at Montgomery is confined strictly to the regular University preparatory work and to such work in the common branches as is absolutely necessary for the study of the higher branches.

The dormitory feature of the Montgomery school is perhaps its strongest claim to the patronage of the more immature students of the state. Board at the dormitory is ten dollars per calendar month. Rooms are furnished by the state.

SCHEDULE OF STUDY.

The work required to complete the prescribed preparatory course covers a period of three years, with an additional year for those who are not well prepared in the common branches, or who are not able to advance rapidly.

First Year.

Fall.	Winter.	Spring.
Greek History	Roman History	English History
English	English	English
Physical Geography	Physiology	Algebra
Latin	Latin	Latin

Second Year.

Algebra	Algebra	Algebra
English	English	English
Greek or German	Greek or German	Greek or German
Latin, French or Drawing	Latin, French or Drawing	Latin, French or Drawing

Third Year.

Plane Geometry	Plane Geometry	Solid Geometry
Latin or French	Latin or French	Latin or French
English	English	English or Botany
Physics, Greek or German	Physics, Greek or German	Physics, Greek or German

To such as may require it, work will be given in elementary algebra, arithmetic, civil government, United States history, single entry bookkeeping, and physiology.

EQUIPMENT.

The building consists of a main structure with two wings and is situated on an eminence southwest of and overlooking Montgomery, Fayette county, a thriving town, with a population of about 2,000. The main building and the first floor of the western wing are used for school purposes. All are connected by broad corridors. The furniture is modern and convenient. A large chapel, well furnished, and four smaller rooms for music or recitations, occupy the second floor of the main building. The buildings are tasteful in design and useful in arrangement, and form a handsome and imposing structure, with all the modern conveniences, such as electric lights, water supply, telephone, electric bells, etc. The entire equipment is such as befits an institution of this character and design.

ATHLETICS.

The Principal has direct supervision of athletics and the school has always sent out teams representative of the student body. The foot-ball and base-ball teams are thoroughly equipped and practice grounds are in sight of the buildings. Croquet and tennis grounds

form part of the school property and the assembly hall is cleared for classes in dumb-bells and Indian clubs during the in-door months. Instruction is given daily on horizontal and parallel bars.

EXPENSES.

Fees.

The Preparatory School at Montgomery is free to all students of West Virginia, the only fee being an incidental fee of $1.50 per term, which aids in meeting the liabilities of the school for which no appropriation has been made. This fee is due at the beginning of each term in the year and must be paid not later than two weeks after entrance.

The time of entrance does not affect the obligation to pay this fee each term for which the student is enrolled.

Board.

Boading at the dormitory costs $10 per calendar month, payable in advance.

Heating and Light.

The dormitory is heated by steam and the students are furnished with lights free of charge.

Total Expenses for the Year.

Boarding	$ 90.00
Washing	10.00
Laundry	5.00
Incidental fees	4.50
Books and Stationery	6.50
	$116.00

THE PREPARATORY SCHOOL AT KEYSER.

LOCAL EXECUTIVE COMMITTEE.

JUDGE F. M. REYNOLDS, J. H. MARKWOOD,
N. J. CROOKS.

F. H. BABB, Secretary and Treasurer of the Board of Regents.

THE FACULTY.

THOMAS WILLIAM HAUGHT, A.B., (West Virginia University) Principal, Mathematics.

JAMES CLARK SANDERS, A.B., (West Virginia University) Vice Principal, Physics and Chemistry.

MRS. IDA FLORENCE MENEFEE, (Wheeling Female College) History and Physical Geography.

JAMES WILLIAM HORN, A.B., (West Virginia University) English and Latin.

ERVIN LEECH ANDERSON, A.B., (West Virginia University) French and German.

ROBERT RAYMON MILLER, (Rochester Normal University) Commercial Branches.

ELSIE REESE HOFFMAN, (Student New England Conservatory of Music) Piano.

PURPOSE.

The Keyser Preparatory School has been established primarily to fit young men and women for entrance to the courses of the West Virginia University. However, careful attention is given to directing the work of students who may find it impossible to enter upon a college course after leaving school.

TERRITORY ALLOTTED.

In establishing the school the state legislature allotted to it eight counties as its distinctive territory,—Grant, Mineral, Hardy, Hampshire, Preston, Pendleton, Tucker, and Randolph. This allotment was made because it was supposed that the school would naturally draw most of its students from the counties most convenient to it. It is not confined to this territory, however; students are admitted from all parts of the state and from other states.

PLANT.

Grounds.—No more beautiful school site is to be found anywhere in West Virginia than that upon which the Keyser Preparatory School stands. It is a historic one, being "Old Fort Hill," upon which stood a Union fortification in time of the Civil War. It affords a splendid view of the famous and beautiful New Creek Valley on one side; and on the other, of the Back-bone Ridge of the Allegheny Mountains across the Potomac in Maryland. Here, Colonel Thomas B. Davis, of Keyser, generously donated seventeen acres of land to be used for the erection of buildings and to be beautified as a campus.

Buildings.—A school building has been erected that is in keeping with the site upon which it stands. It is a commodious brick and stone structure, built in the most modern style of school architecture, and is considered one of the handsomest and most complete school buildings in the state. The basement of this building contains the gymnasium and eight rooms used for chemical and physical laboratories, locker rooms, bath rooms, etc. On the first floor are the offices of the principal, the study hall, the library, and five recitation rooms. On the second floor are two halls for the use of the literary societies, three recitation rooms, and the large assembly hall. This building is furnished throughout with attractive and durable furniture, and the departments are equipped with all necessary apparatus.

COURSES OF STUDY.

There are two regular courses offered—the classical preparatory and the engineering preparatory. The classical preparatory course prepares for admission to the University course leading to the degree of Bachelor of Arts; the engineering preparatory course prepares for admission to the University course leading to the degree of Bachelor of Science, of Bachelor of Science in Civil Engineering, or of Bachelor of Science in Mechanical Engineering. These courses are made to conform as closely as possible to those offered in the Preparatory School at Morgantown. As at present outlined, they cover a period of three years.

For students who are not sufficiently advanced to enter one of the regular courses, a year of sub-preparatory work is arranged.

Students deficient in only part of the work in this sub-preparatory year are allowed to make up their deficiencies and at the same time to pursue such studies in one of the regular courses as they are able to carry.

SUB-PREPARATORY YEAR.

Fall.	Winter.	Spring.
Arithmetic	Arithmetic	Civil Government
Englisb	English	English
Physical Geography	Physiology	American History
	American History	

CLASSICAL PREPARATORY COURSE.

First Year.

Fall.	Winter.	Spring.
Latin	Latin	Latin
English	English	English
English History	Greek and Roman History	General History
Algebra	Algebra	Algebra

Second Year.

Greek or German	Greek or German	Greek or German
English	English	English
Latin or French	Latin or French	Latin or French
Algebra	Plane Geometry	Plane Geometry

Third Year.

Greek or German	Greek or German	Greek or German
Latin or French	Latin or French	Latin or French
Physics	Physics	Physics
Solid Geometry	Trigonometry	

ENGINEERING PREPARATORY COURSE.

First Year.

Fall.	Winter.	Spring.
English	English	English
English History	Greek and Roman History	Book-keeping
Algebra	Algebra	Algebra
Free Hand Drawing	Free Hand Drawing	Free Hand Drawing

Second Year.

English	English	English
German or French	German or French	German or French
Algebra	Plane Geometry	Plane Geometry

Third Year.

German or French	German or French	German or French
Chemistry	Chemistry	Chemistry
Solid Geometry	Trigonometry	

COMMERCIAL COURSES.

In connection with the school at Keyser a commercial department is conducted in which the following courses are offered:

Business,
Shorthand and Typewriting,
Teachers' Business,
Penmanship and Drawing.

MUSIC.

A two years' course of instruction is given on the piano. A thoroughly trained and competent teacher is provided for this work. Instruments are furnishd free for practice.

EXPENSES.

Fees.

No tuition is charged to West Virginia students.

Students coming from other states are required to pay a tuition fee of $5.00 per term.

An incidential fee of $1.25 per term is charged to all students.

The above fees and tuition charges are payable at the time the student enters the school.

Board and Lodging.

All fees collected go towards paying the annual expenses of the school for which no appropriation is made.

The price for table board ranges from $8 to $15 per month; furnished rooms from $3 to $6 per month. The price paid for board and lodging depends upon the tastes and means of the individual student.

XIV. THE WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION.

STATION COMMITTEE.

C. M. BABB. J. R TROTTER. JNO. B. FINLEY

STATION STAFF.

JAMES H. STEWART, A.M.....Director and Agriculturist.
BERT H. HITE, M.S.....Vice Director and Chemist.
JOHN LEWIS SHELDON, Ph.D.....Bacteriologist.
W. E. RUMSEY, B.S.Agr.....Entomologist in Charge.
THOMAS CARSKADON JOHNSON, B.S.Agr., A.M.....
.....Associate Horticulturist.
HORACE ATWOOD, M.S.Agr.....Assistant Agriculturist.
F. B. KUNST,.....Assistant Chemist
FREDERICK E. BROOKS.....Special Agent.
CARL SCHURZ FORKUM.....Assistant Chemist.
ALEXANDER REED WHITEHILL.....Treasurer.
WILLIAM J. WHITE.....Bookkeeper.
MARTHA A. STEWART.....Librarian.
ALICE ENGLE .....Stenographer.

The Experiment Station is a distinct and separate department of the University, and was established by the Board of Regents in 1887 by authority of an Act of Congress, known as the Hatch Act, which was passed on the 2d day of March of that year. The funds for carrying on the operations of the Station, with the exception of its earnings, are derived wholly from the general government. The aforesaid Act in section 2 fully states the object and purposes of the Experiment Station as follows:

"That it shall be the object and duty of said experiment station to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are sev-

erally subject with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches and experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states and territories."

Bulletins and annual reports setting out results of experiments and investigations conducted at the Station are published for gratuitous distribution, and will be mailed, free, to any citizen of the state applying for them.

The Station invites correspondence, suggestions, and advice from farmers and others interested in this work, and all such, with reference to bulletins, experiments, or any matter relating to agriculture, will be welcomed and will receive careful and prompt attention. Correspondence should be addressed to the Director of the Station.

STUDENTS.

NOTE.—The names of all students in the University are printed in alphabetical order in four lists. The first comprises all students in the colleges and schools which give diplomas, namely: The College of Arts and Sciences, the College of Engineering and Mechanic Arts, the College of Agriculture, the College of Law, the College of Medicine, the College of Veterinary Science, the School of Music, the School of Fine Arts and the School of Oratory. The second list includes all students in the Preparatory and Commercial Schools at Morgantown. The third and fourth lists give the names of the students in the Preparatory Schools at Montgomery and Keyser, respectively. Following each student's name there are given his class and the course of study which he is pursuing or the degree for which he is a candidate. The word Freshman, Sophomore, etc., following the student's name indicates his rank on the first day of January, 1906. Students whose names are marked with an asterisk (*) are ranked as Freshmen, but are conditioned in one or more preparatory subjects.

COLLEGES AND SCHOOLS GIVING DIPLOMAS.

Aggleson, Bess Fairfax,	Davis,	Summer School.
Albright, Erbie Clare,	Kingwood,	Music.
Alderson, Fleming Newman,	Summersville,	Junior, Diploma Law.
Anderson, Edythe Alramantha,	Washington, D. C.,	Summer School, Music.
App, John Camillus,	Charleston,	Special, A. B.
Arbuckle, Sarah Elizabeth,	Lewisburg,	Summer School.
Armstrong, Paul Griffith,	Bamrock, O.,	Junior, Diploma Law.
Arnett, Grace Amelia,	Morgantown,	Music.
Arnold, Gohen Clarke,	Buckhannon,	Sophomore, LL. B.
Arnold, Edna,	Weston,	Summer School.
Arnold, Arthur,	Piedmont,	Senior, Diploma Law.
Ash, Marion Jackson,	Ravenswood,	Bar Law.
Atkeson, Mary Meek,	Buffalo,	Music.
Austin, Annie Reynolds,	Lewisburg,	Senior, A. B.
Austin, Samuel Cecil,	Grafton,	2nd year, Medical.
Ayer, Perie Blanche,	Lewisburg,	Summer School.

Ayers, Beuna,	West Milford,	Summer School.
Babb, Haven Chester,	Morgantown,	Junior, Diploma La
Bailey, Sebie,	Buckhannon,	Summer School.
Bailey, Alice,	Morgantown,	Summer School.
Bain, Minnie Josephine,	McKeesport, Pa.,	Summer School.
Baker, Juliette,	Morgantown,	Summer School.
Baker, Grace Juliette,	Morgantown,	Music.
Baldwin, Theo. Waddell,	Morgantown,	Music.
Ball, Barnetta,	Elizabeth,	Special, A. B.
Bane, David Emulous,	Percy, Pa.,	Special, A. B.
Bannister, Frank Raymond,	Morgantown,	Music.
Barbe, Clara Gould,	Morgantown,	Special, Phys. Cul.
Barclay, Hugh,	Carmichaels, Pa.,	Senior, Diploma La
Barker, Shelby Aaron,	Morgantown,	Bar Law.
Barnes Hugh Cooper,	Fairmont,	Freshman, B. S. M.
Barnhart, Elmer Crossland,	Scottdale, Pa.,	Freshman, B. S. C.
Barnhart, Eugene Hildt,	Shepherdstown,	Senior, B. S. C. E.
Barnum, Mary Elizabeth,	California, Pa.,	Summer School.
Bartlett, Ara Amaziah,	Morgantown,	Choral Society.
Bassel, Maude,	Lost Creek,	Summer School.
Bassel, Nellie Burr,	Lost Creek,	Music.
Batten, May,	Morgantown,	Special, Phys. Cul.
Batten, Henry Clay,	Morgantown,	Junior, Diploma La
Baumgartner, William Michael	Morgantown,	Graduate, A. M.
Baumgartner, Vincent Victor,	Morgantown,	1st year, Medical.
Baushke, Daniel William,	Elkins,	Special, A. B.
Bayles, Stella Rosevelt,	Morgantown,	Music.
Bayliss, William Garnett,	Dunloop,	Junior, B. S. M. E.
Beall, Charles Clediss,	Morgantown,	Special, Vet. Scienc
Beardsley, Zella Sadler,	Point Marion, Pa.,	Music.
Bell, Reppa,	Morgantown,	Summer School.
Bell, Alexander Deacon,	New Cumberland,	Freshman, B. S. M.
Beltzhoover, Lucie Adele,	Shepherdstown,	Summer School.
Beneke, George Claus,	Wheeling,	Sophomore, A. B.
Bennett, Clyde Mortimer,	Morgantown,	Sophomore, B. S. C.
Berry, John Charles,	Wheeling,	Junior, A. B.
Betts, Celia,	Ronceverte,	Summer School.
Biddle, Grace Carrie,	Morgantown,	Fine Arts.
Billingsley, Jay Edgar,	Cross Roads,	Freshman, B. S. C.
Bingamon, Howard Milton,	Morgantown,	Senior, Diploma La
Black, Louis Edgar,	Pennsboro,	Special, A. B.
Black, Edward Virtue,	Elizabeth,	Special, A. B.
Blackwood, Katharine,	Huntington,	Summer School.
Blair, Herbert McClaskey,	Weston,	Sophomore, LL. B.
Bloom, Carolyn Lillian,	Pt. Pleasant,	Music.
Bock, Edward Sidney,	Morgantown,	Special, A. B.

Boehler, Louise Anna,	Morgantown,	Music.
Boggess, Clinton Tippy,	Morgantown,	Senior, A. B.
Bond, Samuel Brumfield,	Salem,	Summer School.
Boughton, Laura Mae,	Norwalk, Ohio,	Choral Society.
Bour, John William,	Morgantown,	Music.
*Bowers, Charles Albert,	Wheeling,	Freshman, B. S.
Boyd, Esther Gertrude,	Auburn, Alabama,	Special, A. B.
Boyles, Frank Morris,	Piedmont,	Junior, B. S.
Brainerd, Walton Kirk,	Morgantown,	Music.
Brake, Delia,	Rock Cave,	Sum. School, Lib. Sci.
Brake, Arthur Kent,	Buckhannon,	Junior, B. S. M. E.
Brand, Franklin Marion,	Morgantown,	Senior, A. B.
*Bremer, Ella Elizabeth,	Wheeling,	Freshman, A. B.
Bridges, Annie Esther,	Morgantown,	Music.
Bridges, Orville Alvin,	Morgantown,	Music.
Brock, Martha,	Morgantown,	Choral Society.
Brock, Eleanor,	Morgantown,	Music.
Brooke, Anne Washington,	Morgantown,	Special, A. B.
Brookfield, Inez,	Smithfield,	Summer School.
Brooks, Blanche Eliza,	French Creek,	Summer School.
Brown, Lucile,	Morgantown,	Special, A. B.
Brown, Elizabeth Winifred,	Pulaski, Va.,	Special, A. B.
Brown, Bernard Garland,	Williamsburg,	Special, A. B.
Brown, George Whitaker,	Wheeling,	Freshman, B. S. M. E.
Brown, Iris,	Morgantown,	Music.
Brown, Bess Edna,	Bradford, Pa.,	Music.
Broyles, James Samuel,	Wikel,	Sophomore, B. S. M. E.
*Bruce, Ernest Arden,	Bluefield,	Freshman, B. S. C. E.
Buchanan, Sarah Wiley,	Morgantown,	Summer School.
Buchanan, Margaret,	Morgantown,	Senior, A. B.
Burchinal, Esther,	Morgantown,	Special, A. B.
Burchinal, Anna Mary,	Cheat Haven, Pa.,	Music.
Burner, Allen Eugene,	Cass,	1st year, Medical.
Burns, Laviga Washington,	Meadow Bluff,	Junior, A. B.
Burns, Evalyn Sage,	Morgantown,	Junior, A. B.
Byars, John William,	Alverton, Pa.,	Junior, Diploma Law.
Byrer, Hugh Samuel,	Philippi,	Senior, LL. B.
Caddell, Beula Grace,	Morgantown,	Music.
Cain, Samuel Wornick,	Elizabeth,	Bar Law.
Callison, James George,	Leivasy,	1st year, Medical.
Callison, James Henry,	Morgantown,	Junior, A. B.
Calvert, Jasper Newton,	Morgantown,	Special, B. S. M. E.
Camp, David Jesse Holland,	Morgantown,	Special, Agr.
Campbell, John Edgar,	Moundsville,	Junior, LL. B.
Carle, Ethel,	Eatons,	Summer School.
Carlin, Leo,	Smitfield,	Freshman, A. B.

Carman, Earle Parke,	Bethany,	Bar Law.
Carmen, Emma Pruden,	Philadelphia, Pa.,	Choral Society.
Carr, Louis Arnold,	Clarksburg,	Bar Law.
Carroll, Hardin Duval,	Masontown,	Special Vet. Science.
Carson, Frank Leslie,	New Cumberland,	Junior, Diploma Law
Carter, David Jasper,	Clarksburg,	Bar Law.
*Cather, Wilber Earl,	Morgantown,	Freshman, A. B.
Cavalier, Agnes Bertha,	Wallace,	Music.
Chadwick, Vincent David,	Morgantown,	Music.
Chadwick, Mary Frances,	Morgantown,	Music.
Chalfant, Vivian Mellon,	Pennsville, Pa.,	Summer School.
Chalfant, Lloyd Fletcher,	Morgantown,	Special, M. E.
Chambers, Ella,	Moundsville,	Summer School.
Chapman, Ethel M.,	Clarksburg,	Choral Society.
Charter, Lena Mabel,	Ravenswood,	Choral Society.
Chez, Anthony Wencel,	Morgantown,	Special, Medical.
Chorpenning, Alice Ethel,	Clarksburg,	Music.
Chrisman, Mary Louise,	Morgantown,	Music.
Chrisman, Martha Virginia,	Morgantown,	Music.
Christie, Mary Virginia,	Fairmont,	Music.
Clark, David Core,	Blacksville,	Special, A. B.
Clark, Joanna Stephens,	Blacksville,	Special, A. B.
Clayton, Elizabeth,	Kingwood,	Music.
Clemans, Clermont Delbert,	Clarksburg,	Summer School.
Cobun, Miles Lincoln,	Morgantown,	Music.
Cobun, Bessie,	Reedsville,	Music.
Coffield, George Webster,	Peabody,	Junior, LL. B.
Coffroth, William Bruce,	Keyser,	Junior, B. S. C. E.
Colcord, Edward Clark, Jr.,	St. Albans,	Junior, B. S. C. E.
Colcord, Francis Carlton,	St. Albans,	Senior, B. S. C. E.
Cole, Jeremiah Wilson,	Cameron,	Sophomore, A. B.
Cole, Robert Lee,	Wheeling,	Senior, A. B.
*Cole Otis Oscar,	Morgantown,	Freshman, B. S. C. E
Colebank, George Henry,	Grafton,	Sophomore, A. B.
Coleman, Richard N.,	Morgantown,	Choral Society.
Collett, Albert Jackson,	Beverly,	Senior, LL. B.
Collier, Glenn Albert,	Ceredo,	Sophomore, B. S. M.
Combs, Lillian Belle,	Wellsburg,	Summer School.
Comley, Ella Bertha,	Morgantown,	Music.
Compton, Mary Nane,	Morgantown,	Fine Arts.
Conaway, Orrin Bryte,	Alma,	Senior, LL. B.
Conn, Clyde William,	Smithfield, Pa.,	Special, Medical.
Connell, Virginia,	Morgantown,	Choral Society.
Conrad, John Randolph,	Webster Springs,	Special, A. B.
Coogle, William Lee,	Rivesville,	2nd year, Medical.
Cooke, Elizabeth Josephine,	Morgantown,	Music.

Coombs, Elisha Hough,	Morgantown,	Choral Society.
Coombs, Forest.	Morgantown,	Summer School.
Coombs, Edith Ellwood,	Morgantown,	Music.
Cooper, Victor Fry,	Auburn,	Junior, Diploma Law.
Cooper, Cora,	Auburn,	Summer School.
Cooper, Homer Eber,	Auburn,	Junior, A. B.
Coplin, Mary,	Boothsville,	Senior, A. B.
*Coplin, Nancy,	Boothsville,	Freshman, A. B.
Corker, Alice,	Hinton,	Summer School.
Courtney, Wilma Marie,	Morgantown,	Music.
Courtney, Lizzie Lee,	Morgantown,	Music.
Courtney, Grace Olive,	Morgantown,	Music.
Courtney, Catharine,	Morgantown,	Music.
Courtney, Crystal,	Morgantown,	Freshman, A. B.
Cowgill, Ira Voorhees,	Coldstream,	Senior, Diploma Law.
Cox, Winifred,	Scrafford,	Choral Society.
Cox, Lawrence Morgan,	Morgantown,	Choral Society.
Craft, Elizabeth Virginia,	Bethany,	Summer School.
*Crago, Ray Cornelius,	Morgantown,	Freshman, B. S. C. E.
Crane, Margaret Wardwell,	Kingwood,	Choral Society.
Crane, Stanhope Ordway,	Kingwood,	Music.
Crow, Charles Summer,	Point Marion, Pa.,	Senior, A. B.
Crumrine, Martha,	Morgantown,	Music.
Cummins, John William,	Wheeling,	Special, A. B.
*Cummins, Carroll Elbridge,	Washington,	Freshman, A. B.
Cunningham, Donna Louise,	Smithfield, Pa.,	Summer School.
Curry, Harley Oliver,	Fort Spring,	Special, A. B.
Curry Ethel May,	Academy,	Summer School.
Cutright, Frank,	Sago,	Senior, A. B.
Dailey, Thomas Garrison,	Elkins,	Bar Law.
Dalinsky, Isaac Abraham,	Morgantown,	Music.
Dare, Leonora,	Wellsburg,	Summer School.
Darling, Anna Belle,	Morgantown,	Special, A. B.
Daugherty, Norval Rogers,	Morgantown,	Senior, LL. B.
Daugherty, Grace Edna,	Morgantown,	Fine Arts.
*Davenport, Arthur Thistlewood,	Charles Town,	Freshman, A. B.
Davis, Dora Bell,	Benwood,	Summer School.
Davis, John Lloyd,	Fairmont,	Special, A. B.
Davis, Bruce,	Van Voorhis,	Senior, A. B.
Davis, Lida Leota,	Ravenswood,	Summer School.
Davis Marguerite,	Morgantown,	Music.
Davis, John Lloyd,	Fairmont,	Special, A. B.
Davis, Walter Oral,	Morgantown,	Bar Law.
Darst, Helen Marjorie,	Cottageville,	Special, A. B.
Dawson, Daniel,	Charleston,	Senior, LL. B.
Day, Harry Griffin,	Morgantown,	Choral Society.

Dayton, Arthur Spencer,	Philippi,	Junior, A. B.
Deahl, Mary Anderson,	Morgantown,	Choral Society.
Dean, Richard Marsh,	Elk Garden,	Summer School.
DeBolt, Philip Yeager,	Sistersville,	Freshman, A. B.
Deffenbaugh, Walter Sylvanus,	Leechburg, Pa.,	Summer School.
Deulin, Georgina Aline,	Morgantown,	Music.
Deulin, Lillian Edna,	Morgantown,	Music.
Dick, Florence Emma,	Charleston,	Summer School.
Dietz, Norma Barbara,	Mannington,	Summer School.
Dillard, Rosamond Lee,	Ambrosia,	Special, A. B.
Dille, Maude Evans,	Morgantown,	Music.
Dillinger, Emma,	Pt. Marion,	Music.
Dimick, Artemus Demetreus,	Margaretsville, N. Y.,	Freshman, B. S.M
Dodd, Martha Virginia,	Hedgesville,	Summer School.
Donaldson, Dwight Martin,	Huntington,	Special, A. B.
Donley, Katharyn,	Shepherdstown,	Special, A. B.
Dovey, Hannah Duff,	Philadelphia, Pa.,	Summer School, L
Downs, William Smith,	Martinsburg,	Senior, B. S. C. E
Downs, Harry Allyn,	Martinsburg,	Junior, Diploma
Drane, Robert McVeigh,	Piedmont,	Junior, Diploma
Dudley, Edward Luther,	Grafton,	Senior, B. S. M.
Dulany, Maud Ethel,	Mapleton, Pa.,	Music.
Dunn, Vester Brison,	Reedsville,	Bar Law.
Dunn, Mildred Anne Foster,	Clarksburg,	Summer School.
Duval, Nelson Hammond,	Wellsburg,	Senior, B. S. C. E
Edwards, Alta Muse,	Benwood,	Summer School.
Edwards, Mary Dorothy,	Martinsburg,	Senior, A. B.
Elliott, Lucile Ware,	Terra Alta,	Music.
Elliott, Anna Naomi,	Sistersville,	Special, A. B.
Ellison, Charles Alexander,	Hans Creek,	Senior, B. S. M.
Ellison, Elizabeth Clara,	Hans Creek,	Music.
Ely, Mrs. John Calvin,	Morgantown,	Special, A. B.
Ely, John Calvin, Jr,	Morgantown,	Freshman, A. B.
Emory, Pearl Belle,	Smithfield, Pa.,	Music.
Erwin, Charles Emmet,	Ronceverte,	Special Agr.
Ernst, Howard Mark,	Thompson, Ohio,	Junior, B. S. C.
*Estill, Davis Hudson,	Charleston,	Freshman, B. S.
*Feller, Charles Victor,	Martinsburg,	Freshman, B. S.
Fetty, Teresa Catherine,	Hagans,	Summer School.
*Finlayson, John Kennedy,	Sistersville,	Freshman, A. B.
Fisher, Mary Ruth,	Morgantown,	Music.
Fisher, Gladdine Ada,	Morgantown,	Music.
Fitch, Jessie Johnson,	Morgantown,	Music.
Fitch, Jennie Elizabeth,	Morgantown,	Choral Society.
Fitch, Katherine Finnell,	Morgantown,	Music.
Fitch, Harry Newton,	Morgantown,	Choral Society.

Fitzgerald, Thomas Wit,	Huntington,	Freshman, B. S. M. E.
Flanagan, Daniel William,	East Greenwich, R. I.,	Bar Law.
Fleming, Viola,	Morgantown,	Fine Arts.
Fleming, Jean Ferran,	Fairmont,	Music.
Fleming, Helen Maud,	Fairmont,	Special, A. B.
*Folau, Rosa,	Clarksburg,	Freshman, B. S.
Folk, George Billmyer,	Martinsburg,	Sophomore, A. B.
Foreman, Nyna,	Morgantown,	Music.
Foreman, Alexander Hardie,	Morgantown,	Senior, B. S.M. E.
Forkum, Mrs. Carl Schurz,	New Castle, Pa.,	Fine Arts.
Fortney, Camden Page,	Lumberport,	Junior, B. S. C. E.
Foster, Mabel Constance,	Chicago, Ill.,	Music.
Fought, Ruby,	Newark,	Special, A. B.
Foulk, Margaret Virginia,	Morgantown,	Junior, A. B.
Foulk, Thomas Bond,	Morgantown,	Junior, B. S. C. E.
Francis, Thomas Robert,	Morgantown,	Special, Medical.
Francis, Charles Blaine,	Pt. Marion, Pa.,	Sophomore, B. S.
Frantz, Winter Reginald,	Cumberland, Md.,	Sophomore, B. S.
Fravel, Mary Stewart,	Poca,	Freshman, A. B.
Frazee, Austin Augustine,	Morgantown,	Special, A. B.
Frazer, Leila Jessie,	Morgantown,	Choral Society.
French, Alpha,	Dawson, Pa.,	Summer School.
Friedman, Harry,	Grafton,	Senior, LL. B.
Friend, Thomas Henry,	Morgantown,	Music.
*Fries, Lorena Mabel Lee,	Berkeley Springs,	Freshman, A. B.
Fulcher, Maud Louise,	Morgantown,	Special, A. B.
Furman, Cecyle Mayme,	Cassville,	Music.
Gallup, William Henry,	Morgantown,	Summer School.
Garrison, Lillian Knight,	Morgantown,	Music.
Gaskin, Nina Love,	Grafton,	Special, A. B.
Gatherum, Robert,	Gatewood,	Junior, B. S. C. E.
Gajetti, Giovanni,	Morgantown,	Bar Law.
Genin, Olga Desire,	Morgantown,	Music.
Gibbons, Teresa,	New Martinsville,	Summer School.
Gibbs, Bertha Alice,		Choral Society.
*Gibbs, Oscar Franklin,	Pt. Pleasant,	Freshman, B. S. M. E.
Gibson, Joseph Vincent,	Tunnelton,	Sophomore, LL. B.
Gibson, Etna Gertrude,	Washington, Pa.,	Summer School.
Gibson, James Clyde,	Bethany,	Freshman, B. S. C. E.
Gibson, Clay Ashbel,	Morgantown,	Senior, B. S. M. E.
Gibson, Roxy Ethelyn,	Washington, Pa.,	Summer School.
Giffin, James Vincent,	Triadelphia,	Summer School.
Giorgessi, Guiseppe,	Uniontown, Pa.,	Special, Medical.
Gist, Maria Anna,	Wellsburg,	Summer School.
Gist, Joseph Applegate,	Wellsburg,	Junior, LL. B.
Gist, William Colver,	Wellsburg,	Senior A. B.

*Goldbarth, Irvin Strauss,	Charleston,	Freshman, A. B.
Golden, Bruce,	Philippi,	Bar Law.
Goodwin, Alice,	Clarksburg,,	Summer School.
Gorby, Mary Dean,	Morgantown,	Music.
Gorby, Thomas David,	Majorville,	Special, C. E.
Gorman, Annie Pelley,	Morgantown,	Choral Society.
Grant, Justin Frank,	Morgantown,	Graduate, Ph. D.
Grant, Hannah Margaret,	Morgantown,	Music.
Gray, Robert Russell,	Sink's Grove,	Special, A. B.
Green, Ethel Averil,	Morgantown,	Junior, A. B.
Greene, David Myron,	Morgantown,	Senior, LL. B.
Gregg, John Morton,	Morgantown,	Choral Society.
Gregg, Lucile Chase,	Morgantown,	Music.
Griffin, Harry Lewis,	Morgantown,,	Freshman, LL. B.
Grimsley, Clara Spencer,	Morgantown,	Choral Society.
Gronninger, James Davis,	Charleston,	Senior, LL. B.
Grose, Edward Rutherford,	Sago,	Sophomore, A. B.
Grout, Frank Fitch,	Morgantown,	Choral Society.
Grumbein, John Behny,	Morgantown,	Special, M. E.
Guntner, Herman,	Lazearville,	Special, A. B.
Hackney, Blanche,	Morgantown,	Choral Society.
Haddox, Nellie Audrey,	Morgantown,	Music.
Haggerty, Walter Rex,	Fairmont,	Bar Law.
Hall, Ida Pauline,	Morgantown,	Summer School.
Hall, Marguerite Spragg,	Morgantown,	Music.
Hall, Arthur,	Grafton,	Senior, B. S. M. E.
*Hall, Roy Olney,	Grafton,	Freshman, A. B.
Hall, Oscar Lee,	Tate,	Special, A. B.
Hall, John Wotring,	Keyser,	Freshman, B. S. C. E.
Hall, Archie Carl Moses,	Buckhannon,	Junior, B. S.
Hamilton, Robert Olen,	Hawk's Nest,	Bar Law.
Hammer, Samuel Francis,	Morgantown,	Senior, B. S. C. E.
Hamrick, John Jay,	Morgantown,	Bar Law.
Hanifan, Lyda,	Cubana,	Junior, A. B.
Hardesty, Ocie,	Mannington,	Music.
Hare, Eulan Edna,	Morgantown,	Fine Arts.
Hare, Hazel Helen,	Morgantown,	Music.
Harlan, William Edward,	Morgantown,	Music.
Hartley, Guy Baxter,	Morgantown,	Special, B. S. C. E.
Hartman, Jessie Margaret,	Burnt House,	Music.
Harvey, Lewis,	Huntington,	Summer School, Lib. Sci.
Haught, Benjamin Franklin,	Atwood,	Sophomore, A. B.
Hawkins, Elsie Suevenia,	Morgantown,	Music.
Hawley, Bertha Sterling,	Fairmont,	Sophomore, A. B.
Hayes, Flora Ray,	Morgantown,	Junior, A. B.
Hayes, Lizzie Gertrude,	Morgantown,	Choral Society.

Hayslip, Jessie Fremont,	Guyandotte,	Fine Arts.
Headley, Julius Bryon,	Brock, Pa.,	Freshman, B. S. C. E.
Hedge, Thurman,	Short Creek,	Special, A. B.
Henderson, Osa Belle,	Wadestown,	Music.
Henry, Ray,	Morgantown,	Summer School.
*Henshaw, Edgar Levi,	Martinsburg,	Junior, Diploma Law.
Hepburn, Carrie,	Piedmont,	Summer School.
Herbert, Nellie Jane,	Scottdale, Pa.,	Music.
Herd, Virginia,	Morgantown,	Music.
Hereford, Walter Donaldson,	St. Albans,	Junior, LL. B.
Hess, Aubrey Franklin,	Morgantown,	Special, A. B.
Higley, Ida May,	Clarksburg,	Summer School.
Hill, Lawrence Benjamin,	McKim,	Senior, A. B.
Hill, William Donaldson,	Everson, Pa.,	Bar Law.
Hinman, Clark Frank,	Somerville, Mass.,	Sophomore, B. S. M. E.
Hodges, Eliza Pearl,	Morgantown,	Music.
Hodges, Grace Mabelle,	Morgantown,	Music.
Hoffman, Harry Ellsworth,	Bellton,	Summer School.
Hogg, Lulu Shannon,	Wellsburg,	Summer School.
Holden, Floyd Triplett,	Piedmont,	Special.
Holmes, Harry,	Elizabeth,	Bar Law.
Honecker, Benjamin Stewart,	Morgantown,	Senior, Diploma Law.
*Hood, Edgar Foreman,	Clarksburg,	Freshman, A. B.
Howard, Lester,	Stanfordville, N. Y.,	Junior, A. B.
Howell, Margaret,	Morgantown,	Music.
Hubbs, George Emanuel,	Benwood,	Summer School.
Hudson, Jane May,	Athens, Ohio,	Special, A. B.
Huey, Lowry Burchinal,	Mannington,	Special, A. B.
Huggins, Nelly May,	Morgantown,	Music.
Hundley, Edward Everett,	Morgantown,	Music.
Hundt, Herman August,	Wheeling,	Junior, Diploma Law.
Hunter, Erwin Garfield,	Morgantown,	Special, A. B.
Hurxthal, Josie Morton,	Ronceverte,	Special, A. B.
Hutchinson, John Quincy,	Beckley,	Junior, A. B.
Hutchinson, Lydia,	Oak Hill,	Summer School.
Hutchinson, Brooks Swearengen,	Fairmont,	Sophomore, A. B.
Hutchinson, Willis Lee,	Flatwoods,	Freshman, A. B.
Idleman, Willye Alma,	Maysville,	Summer School.
Idleman, Ollie Frances,	Maysville,	Summer School.
Ireland, Addie Rosalie,	Morgantown,	Fine Arts.
Jackson, Cora Edna,	Ronceverte,	Special, A. B.
Jackson, Florence Frances,	New Haven,	Freshman, A. B.
Jackson, Nette Ruth,	Ronceverte,	Special, A. B.
Jackson, Stephen Goodloe,	Jane Lew,	Junior, B. S.
Jaco, Olive Miller,	Morgantown,	Fine Arts.
Jacobs, Chrystal Norvella,	Indianapolis, Ind.,	Music.

Jenkins, Jessie,	Morgantown,	Junior, A. B.
Jenkins, James Hall,	Peterstown,	Sophomore, B. S. C. E.
Jennings, Maude Katharyne,	Morgantown,	Music.
Johnson, Anna Ballou,	Morgantown,	Fine Arts.
Johnson, George Delbert,	White Creek,	2nd year, Medical.
Johnson, Drusilla Victoria,	Morgantown,	Choral Society.
Johnson, Anna Hayes,	Morgantown,	Music.
Johnson, Lydia Lucile,	Cadiz, Ohio,	Special, A. B.
Johnson, Laura Dale,	Morgantown,	Choral Society.
Johnston, Lucy Belle,	Morgantown,	Music.
Jones, Etta B.,	Morgantown,	Choral Society.
Jones, Ethel Belle,	Knottsvillle,	Sophomore, A. B.
Jones, Elizabeth,	Morgantown,	Music.
Jones, John Wesley,	Baltimore, Md.,	Music.
Jordan, Homer Garfield,	Morgantown,	Special, Medical.
Joseph, Nell Ethyl,	Morgantown,	Music.
Kane, Ida Mae,	Everson,	Summer School.
Kearney, Katharine,	Shepherdstown,	Special, A. B.
Keely, Urania Bradley,	Charleston,	Summer School.
Keener, Beulah Blanche,	Morgantown,	Music.
Keever, Carrie Roena,	Belleville,	Summer School.
Keighron, Hazel Margaret,	Morgantown,	Music.
Keister, John Claude,	Upper Tract,	Junior, Diploma Law.
Kelley, Lulu Genevieve,	Morgantown,	Music.
Kelley, Edna Marguerite,	Morgantown,	Music.
Kelliwell, Lilian Agnes,	Mannington,	Special, A. B.
Kenamond, Alva Dayne,	Wheeling,	Junior, A. B.
Kenna, John Edward,	Charleston,	Bar Law.
Kennedy, William Michael,	Fairmont,	Sophomore, A. B.
Kern, Nellie Wheeler,	McMechen,	Summer School.
Kerr, Raymond Earle,	Parkersburg,	Special, C. E.
Kidd, Edna May,	Morgantown,	Music.
*Kidd, Robert Henry,	Burnsville,	Freshman, B. S.
Kiger, Pearl Randolph,	Sherrard,	Special, C. E.
Kiger, Reuben Alvin,	Sherrard,	Special, C. E.
Kincade, Lillian Virginia,	Pt. Pleasant,	Summer School.
*King, Benjamin Walter,	McMechen,	Freshman, B. S.
Knabenshue, Edward Hanson,	Morgantown,	Senior, A. B.
Knabenshue, Brace Sloan,	Morgantown,	Music.
Knabenshue, Edna,	Morgantown,	Choral Society.
Knapp, Effie Margaret,	Fairmont,	Summer School.
Knight, Arthur Clyde	Mt. Clare,	1st year, Medical.
Knoke, Frank Louis,	Wheeling,	Freshman, B. S. M. E.
Knotts, Ollie,	Newburg,	Music.
Koetz, Herman Charles,	Keyser,	Freshman, B. S. C. E.
Koenemund, Bertha,	McMechen,	Summer School.

Kraus, Robert,	Weston,	Special, A. B.
Kunkle, James Harvey,	Morgantown,	Junior, B. S. M. E.
Kunkle, Justin M.,	Morgantown,	Junior, LL. B.
Kunst, Frank Batson,	Pruntytown,	Senior, A. B.
Lamb, Ida May,	Troy,	Special, A. B.
Larew, James Edgar,	Greenville,	Senior B. S. C. E.
Lawler, Trueman Barton,	Fairmont,	Sophomore A. B.
Lawson, Herschel Wayne,	Morgantown,	Sophomore A. B.
*Layman, Claude Harrison,	Fairmont,	Freshman A. B.
Layton, Lulu Eugenie,	Morgantown,	Music.
Lazier, Medice Alice,	Elkins,	Music.
Lazzell, Neta Blanche,	Van Voorhis,	Fine Arts.
Lazzelle, Donald Grant,	Morgantown,	Music.
Leahy, Thomas,	Morgantown,	Junior B. S. C. E.
Lee, Mabel,	Clarksburg,	Special, A. B.
Lemley, Olive Blake,	Cassville,	Music.
Lewis, Laura Frances,	Aberdeen,	Junior, A. B.
Lewis, Orpha Clark,	Aberdeen,	Junior, Diploma Law.
Lewis, Helena Marie,	Morgantown,	Music.
Lewis, Eunice,	Aberdeen,	Summer School.
Linn, Robert,	Charleston,	Bar Law.
Lively, Clarence Wade,	Roseville,	Senior, Diploma Law.
*Lloyd, Newell Stanley,	New Cumberland,	Freshman, B. S.
Lloyd, Wylie Everette,	New Cumberland,	Sophomore, B. S. M. E.
Lohm, Albert Lafayette,	Grafton,	Bar Law.
Lough, Walter Gay,	Fairmont,	1st, year Medical.
Lowe, Gussie Belladona,	Pine Grove,	Music.
Lowe, Nannie Rector,	Shinnston,	Special, A. B.
Lucas, Arthur Maple,	Morgantown,	Sophomore, B. S. C. E.
Lytle, Clara,	Parkersburg,	Special, A. B.
MacQuarrie, Hector Kenzie,	Baddeck, N. S.,	Senior, LL. B.
Madera, Irene Elizabeth,	Morgantown,	Music.
Murphy, Michael Josiah, Jr.,	Morgantown,	Bar Law.
Malcolm, Jean Kelso,	Keyser,	Summer School.
Maphis, Lillian,	Morgantown,	Music.
Marsh, Joseph Franklin,	Harrisville,	Junior, A. B.
Martin, Ella V.,	Sistersville,	Special, A. B.
Martin, Paul Heermans,	Morgantown,	Junior, A. B.
Martin, Martha Alice,	St. Albans,	Summer School.
Martin, Martha Ray,	Morgantown,	Special, A. B.
Mason, John William, Jr.,	Fairmont,	Junior, B. S.
*Mason,Earle Dilworth,	Allegheny, Pa.,	Freshman, B. S. C. E.
Mattson, Ellen Anna,	Morgantown,	Music.
Mayfield, Ottie Myrtle,	Morgantown,	Summer School.
Maxwell, Sarah,	Morgantown,	Choral Society.
Maxwell, Marian,	Morgantown,	Music.

McAllister, Wallis Kelley,	Wheeling,	Special, M. E.
McCarthy, Timothy James,	Fenton, Michigan,	Sophomore, B. S. A
McComas, Minnie Lee,	St. Albans,	Summer School.
*McCombs, Edgar Pearl,	Sherrard,	Freshman, B. S. C.
*McConihay, Clarence William,	Lewiston,	Freshman, A. B.
McCreery, Elsye Mary,	Morgantown,	Choral Society.
McCue, William Pearl,	Muddlety,	Special, C. E.
McCue, Anthony Fielding,	Persinger,	Senior, Diploma Law
McCullough, Jennie Louise,	Mole Hill,	Special, A. B.
McCutcheon, Merle,	Triadelphia,	Special, Medical.
McDaniel, Bertha,	Kerens,	Music.
McDonald, Marshall Woodrow,	Charles Town,	Senior, B. S. C. E.
McDougal, Ora,	Pennsboro,	Summer School.
McDowell, James Otey,	Mabscott,	Bar Law.
McEldowney, John Cochran,	New Martinsville,	Bar Law.
McFarland, Caroline Mabel,	Vanderbilt, Pa.,	Music.
McFarland, Winifred Lee,	Vanderbilt, Pa.,	Music.
McFarland, Della Haraine,	Dunbar, Pa.,	Music.
McGinnis, Benjamin Franklin,	Ellenboro,	Special, A. B.
McJilton, John Perkins,	Sleepy Creek,	Sophomore, B. S. M.E
McKinney, Jane Etta,	Fairmont,	Senior, A. B.
McMillen, Perry Wade,	Masontown,	Junior, B. S. C. E.
McMorrow, John Alden,	Glendon,	Bar Law.
McNeill, Chauncey St. Claire,	Morgantown,	Senior, Diploma Law
McNeill, Llewellyn Brown,	Morgantown,	Special, A. B.
McNutt, John Dana,	Sutton,	Junior, B. S. C. E.
McQuilkin, Dwight Eggleston,	Shepherdstown,	Graduate, A. M.
Meador, Bernard Brown,	Athens,	Bar Law.
Mealy, Effie Eugene,	Morgantown,	Music.
Menefee, Columbia Gertrude,	Keyser,	Freshman, A. B.
Mestrezat, Mary Helen,	Morgantown,	Music.
Millan, Mary Joana,	Mannington,	Music.
Millan, Russell Golden,	Mannington,	Senior, B. S. M. E.
Miller, Carrie May,	Scottdale, Pa.,	Music.
Miller, Dana Paul,	Fairmont,	Senior, A. B.
Miller, Alexander,	Morgantown,	Music.
Miller, Wayne McCormick,	Morgantown,	Senior, B. S. C. E.
Miller, Charles Edmund, Jr.,	Morgantown,	Summer School.
*Milliken, Rex,	Moundsville,	Freshman, B. S. M.
Miser, Grace,	Holliday's Cove,	Summer School.
Mitchell, Harbour,	Wheeling,	Sophomore, B. S. M. E
Montague, Russell Cary,	White Sul. Springs,	Bar Law.
*Moon, Ada,	Morgantown,	Freshman, A. B.
Moomau, Glenn Johnson,	Franklin,	2nd year, Agr.
Moore, Dora,	Clarksburg,	Summer School.
Moore, Tocie,	Mannington,	Summer School.

Moore, Susan Maxwell,	Morgantown,	Music.
Moorehead, Jessie John,	Morgantown,	Music.
Moreland, Ethel Finnicum,	Morgantown,	Choral Society.
Morgan, Minnie Moore,	Morgantown,	Physical Culture.
Morgan, Purley,	Alexander,	Sophomore, A. B.
Moriarty, John Saul,	Pt. Pleasant,	Freshman, B. S. C. E.
Morris, Olive Hite,	Morgantown,	Special Phys. Cul.
Morris, Nellie Delia,	Morgantown,	Junior, A. B.
Morris, Wilfred Armstrong,	Connellsville, Pa.,	Junior, B. S. C. E.
Morrison, Wellington Fletcher Jr.,	Sutton,	Bar Law.
Mountz, George Calvin,	West Alexander, Pa.,	Special, Medical.
Musgrave, Lawrence Clifton,	Rivesville,	Bar Law.
Myers, Walter Henry,	Morgantown,	Special, Medical.
Myers, Clifford,	Mason,	Junior, A. B.
Naret, Barbara Romaine,	Morgantown,	Music.
Neal, Virginia Bransford,	Parkersburg,	Freshman, A. B.
Neal, Ada May,	Parkersburg,	Special, A. B.
Neale, Margaret Lynn,	Pt. Pleasant,	Special, A. B.
Neel, Baxter Louis,	Gap Mills,	Special, Agriculture.
Nestor, Ira Francis,	Auvil,	Summer School.
Nestor, Ida Flora,	Hovatter,	Special, A. B.
Neville, Robert Albert,	Dawson, Pa.,	Special, Medical.
Nicols, Gertrude Steele,	Grafton,	Summer School.
Noel, Bessie May,	Benwood,	Summer School.
Noel, Mamie Adelle,	Hinton,	Summer School.
Noesch, John Wesley,	Morgantown,	Choral Society.
Norman, Opha,	Berlin,	Summer School.
Nuzum, Myrtle,	Ravenswood,	Summer School.
Nuzum, John,	Leroy,	Graduate, A. M.
Omori, Zenkai,	Yeheji, Tokyo, Japan,	Special, A. B.
Owens, Sarah,	Letart,	Summer School.
Owens, William Thomas,	Clarksburg,	Special, Medical.
Parfitt, George Vandervort,	Morgantown,	Special, Agr.
Parker, Goldie Love,	Morgantown,	Music.
Parker, Walter Miller,	Huntington,	Special, A. B.
Parker, Errie,	Liverpool,	Summer School.
Parriott, James Deforis,	Cameron,	Special, A. B.
Parsons, Peter F.,	Ella,	Special, C. E.
Patterson, Thomas Shaffer,	Elizabeth, Pa.,	Special, M. E.
Pearcy, Carl,	Morgantown,	Special, A. B.
Pendleton, Daniel Micajah,	Spencer,	Junior, Diploma Law
Peoples, Dana Holland,	Pomeroy, Ohio,	Bar Law.
Pettit, Charles Sherman,	Morgantown,	Senior, Diploma Law
Phillips, Annie Reid,	Charleston,	Special, A. B.
Phillips, Maud,	Morgantown,	Music.
Pifer, Clarence Bishop,	Parsons,	Special, A. B.

Pocock, Leila Amelia,	Morgantown,	Choral Society.
Poling, Marie Ward,	Morgantown,	Music.
Pollock, John Samuel,	Lafferty, Ohio,	Special, Medical.
Pollock, Ella,	Waynesburg, Pa.,	Freshman, A. B.
Pomroy, Gertrude,	Morgantown,	Music.
Post, Arthur Lee,	Good Hope,	Music.
Post, Martha Louise,	Good Hope,	Special, A. B.
Post, Clarence,	Fairmont,	Junior, A. B.
Post, Porter Wallace,	Jane Lew,	Special Agr.
*Pow, George W.,	Adams, Mass.,	Freshman, B. S. C. E.
Pracht, Nannie Walters,	Grafton,	Music.
Pratt, Oliver Clinton,	Morgantown,	Choral Society.
Prebst, John,	Whitsett, Pa.,	Special, A. B.
Prentice, Ellen,	Ronceverte,	Summer School.
Price, Reppa,	Morgantown,	Special, A. B.
Price, Lottie May,	Benwood,	Summer School.
Price, Blanche Elizabeth,	Morgantown,	Music.
Price, Mary Belle,	Morgantown,	Music.
Price, Richard McSherry,	Charleston,	Senior, LL. B.
Price, Edith Pearl,	Morgantown,	Music.
Price, George Washington,	Uffington	Junior, Diploma Law,
Prichard, Mahala Dorcas,	Rivesville,	Freshman, A. B.
Prichard, John Guy,	Rivesville,	Senior, LL. B.
Prickett, Evelyn Effie,	Catawba,	Summer School.
Prince, Alberta May,	Wheeling,	Special, A. B.
Protzman, Dessie,	Morgantown,	Music.
Protzman, Blanche,	Morgantown,	Music.
Pugh, Eliza Jane,	Morgantown,	Junior, A. B.
Purinton, Helen Elizabeth,	Morgantown,	Music.
Purinton, Mary Lyon,	Morgantown,	Sophomore, A. B.
Pyles, Frank James,	Amboy,	Special, A. B.
Quick, Howard Maurice,	Marietta, Ohio,	Junior, LL. B.
Ramage, Pansee Berle,	Fairmont,	Music.
Ramage, Chesney Macaulay,	Fairmont,	Junior, A. B.
Ramage, Thomas,	Connellsville, Pa.,	Junior, Diploma Law.
Ramsey, Thera Ada,	Morgantown,	Fine Arts.
Randal, Boyd,	Martinsburg,	Sophomore, A. B.
Raspillaire, Emile Alfred,	Morgantown,	Music.
Reiley, Earle Walton,	Hinton,	Senior, B. S. C. E.
Reiner, Ada Eleanor,	Morgantown,	Fine Arts.
*Reiner, Phinny Porter,	Morgantown,	Freshman, A. B.
Reinheimer, Clara May,	Fairmont,	Sophomore, A. B.
Reinheimer, Clara Regina,	Fairmont,	Special, A. B.
Reitz, Walter Raleigh,	Sistersville,	Special, A. B.
Reynolds, Mabel Curry,	Morgantown,	Choral Society.
Reynolds, Harris Aquilla,	Holden,	Special, C. E.

Rexroad, Joseph Leonard,	Arthur,	Summer School.
Riffe, Jerome Alfred,	Hinton,	2nd year, Medical.
Rightmire, Beulah,	Morgantown,	Fine Arts.
Rightmire, Edna,	Morgantown,	Junior, A. B.
Riley, Richard Mitchell,	Morgantown,	1st year, Medical.
Ritchey, Clara Grace,	Central City,	Summer School.
Rittenhouse, Ellis Monroe,	Fairmont,	Special, A. B.
Ritz, John Eldon,	Huntington,	Bar Law.
Roach, Donna Marie,	Athens, Ohio,	Fine Arts.
Robbins, Alva Clarence,	Morgantown,	Junior, LL. B.
Robinson, Wilbur Howard,	Millsboro,	Junior, B. S. C. E.
Robinson, Jedediah Waldo,	Grafton,	Senior, LL. B.
Robinson, James William,	Clarksburg,	Bar Law.
Rogers, Chester Prince,	Wheeling,	Freshman, B. S. M. E.
Rogers, Robert Henry,	Buffalo,	Special, A. B.
Roome, Elizabeth,	Sistersville,	Summer School.
Rose, Bessie,	Pliny,	Summer School.
Rose, Lloyd,	Pliny,	Summer School.
Rose, Herschel Hampton,	Mannington,	Senior, LL. B.
Ross, Charles Burt,	Morgantown,	1st year, Agr.
Ross, Donald,	Morgantown,	Freshman, B. S. C. E.
Ross, Nellie May,	Hedgesville,	Summer School.
Ruble, William Jefferson,	Smithfield, Pa.,	Special, C. E.
Rucker, Roy Waller,	Romney,	Junior, Diploma Law.
Russell, John Manning,	Loveville,	Freshman, B. S. C. E.
*Rust, Marshall Wormley,	Charles Town	Freshman, B. S. C. E.
Sadler, Elizabeth Julia,	Pt. Marion,	Music.
Sage, Richard Ward,	Sistersville,	Freshman, B. S. C. E.
Sanders, Maud Helen,	Randall,	Music.
*Sanders, Herbert Watts,	Sanders,	Freshman, A. B.
Saunders, Lawrence Davis,	Van Voorhis,	Sophomore, B. S.M. E.
Sayre, Martin Luther,	Evans,	Junior, B. S. C. E.
Sayre, Jessie,	Ripley,	Special, A. B.
Schmidiger, August,	Morgantown,	Music.
Schmidiger, Bertha,	Morgantown,	Music.
Schmidt, Caroline,,	Morgantown,	Music.
Schneider, Eugene Henry,	Saulsburg,	Special, C. E.
Schrader, Henry Maxwell,	Lubeck,	Senior, B. S. C .E.
Scott, Halleck McGinnis,	Beckley,	Freshman, B. S. C. E.
Scott, Pearl,	Pennsboro,	Special, A. B.
Seay, Samuel Bourne,	Wheeling,	Bar Law.
Seitter, William Frederick,	Triadelphia,	Graduate.
Selby, Lloyd Blaine,	Morgantown,	Sophomore, B. S.M. E.
Sennett, Nora Belle,	Morgantown,	Special, Phys. Cul.
Settle, Joseph Edward,	Deep Water,	Sophomore, B. S. C. E.
Schaffer, Harry Gus,	Kingwood,	Special, A. B.

Shepler, Katharine Emma,	Ruffsdale, Pa.,	Special, A. B.
Sheppard, Creedy Collins,	Walton,	Freshman, B. S. M. E.
Sheppard, James Reed,	New Haven, Pa.,	Bar Law.
Shields, Sara Martha,	Florence, Pa.,	Music.
Shirkey, Sydney Staunton,	Malden,	Sophomore, LL. B.
Shockey, Martha Virginia,	Winchester, Va.,	Summer School.
Shough, George Milton,	Hundred,	Special, Medical.
Shinn, Fred Lawrence,	Morgantown,	Senior, Diploma Law.
Shriver, Icie,	Cowen,	Special, A. B.
Shull, Claude Lareux,	Romney,	Senior, Diploma Law.
Schultz, Grace Lyda,	Mt. Morris, Pa.,	Music.
Shuttlesworth, Jessie Edith,	Morgantown,	Fine Arts.
Shuttlesworth, Mary Letitia,	Morgantown,	Music.
Sigwart, Mary Ottoff,	Morgantown,	Music.
Simmons, Walter Richard,	Churchville,	Bar Law.
Simpson, Ella,	Morgantown,	Summer School.
Sisler, Millard Telford,	Morgantown,	Choral Society.
Sivey, Letta Agnes,	Morgantown,	Fine Arts.
Smail, Jay Albert,	Creekside, Pa.,	Special Vet. Science.
Smart, Gladys Fortumn,	Morgantown,	Music.
Smart, Hazel Margetts,	Morgantown,	Music.
Smith, Augustus Edwin,	Everson, Pa.,	Summer School.
Smith, Clara Martha,	Morgantown,	Music.
Smith, Bessie LeVerna,	Fairmont,	Music.
Smith, Rennie Blanche,	Frankford,	Special, A. B.
Smith, Charles Henry,	Morgantown,	Choral Society.
Smith, James Henry,	Morgantown,	Special, A. B.
*Smith, Lee Allan,	Morgantown,	Freshman, A. B.
Smith, Charles Julius,	Morgantown,	Freshman, B. S. M. E.
Smith, Amos Elbridge,	Morgantown,	1st year, Medical.
Smith, Everett Clerc, Jr.,	Ravenswood,	Special, C. E.
Smith, Cilda Langfitt,	Fairmont,	Sophomore, A. B.
Smith, Bertha Jane,	Sistersville,	Music.
Smith, Clifford Addison,	Meadville,	Special, Medical.
Smith, Lillian Ballard,	Charleston,	Special, A. B.
Smith, Helen Barrett,	Charleston,	Senior, A. B.
Smith, DaCosta,	Weston,	Junior, LL. B.
Smith, Charles Sheldon,	McKeesport, Pa.,	Junior, A. B.
Smith, Ira Louis,	Morgantown,	Bar Law.
Smith, Florence Laura,	Hinton,	Summer School.
Snee, Grace Martin,	Morgantown,	Music.
Snider, Grace Edith,	Point Marion, Pa.,	Music.
Snyder, Josephine,	Morgantown,	Music.
Snyder, John Calvin,	Shelocta, Pa.,	Special, Vet. Science.
Snyder, Herbert Earl,	Saulsburg, Md.,	Freshman, B. S. C. E.
Snyder, Louis Clarke,	Morgantown,	Summer School.

Somerville, George Greene,	Pt. Pleasant,	Junior, Diploma Law.
Sonneborn, Henrietta,	Morgantown,	Music.
South, Winifred Orienta,	Morgantown,	Choral Society.
Southern, John Cornelius,	Adamston,	Senior, Diploma Law.
Spahr, Belle Lee,	Kingwood,	Summer School.
Spragg, Leon White,	Wheeling,	Sophomore, B. S. C. E.
Spurgeon, Ethel,	Uniontown, Pa.,	Summer School.
Stalkner, Harriet Talbott,	Flemington,	Senior, A. B.
Stark, Lyda Arthur,	Weston,	Special, A. B.
Stathers, Birk Smith,	Martinsburg,	Senior, A. B.
Staubley, Ralph Franklin,	Hamlin,	Junior, Diploma Law.
Steed, Robert Dennis,	Clarksburg,	Bar Law.
*Steele, Willard,	Martinsburg,	Freshman, A. B.
Steele, Eleanor Victoria,	Morgantown,	Special, A. B.
Steenbergen, Peter Higgins.	Pt. Pleasant,	Summer School.
Steenbergen, John Harness,	Beale,	1st year, Medical.
Stephens, Lida Bell,	Kirby, Pa.,	Music.
Stephens, Rose Cree,	Blacksville,	Music.
Stewart, Carrie Ellen,	Morgantown,	Special, A. B.
Stewart, Minnie Louise,	Morgantown,	Summer School.
Steinbach, Bertha Julia,	Pt. Pleasant,	Summer School.
Stone, Helen Louise,	Morgantown,	Music.
Strader, Wilbur Jackson,	Beverly,	Senior, LL. B.
Streator, Helen Mitchener,	Washington, Pa.,	Special, A. B.
Strickler, Margaret,	Morgantown,	Special, A. B.
Strickler, Robert Parvin,	Parsons,	Junior, A. B.
Strosnider, Homer,	Morgantown,	Junior, Diploma Law.
Sundmacher, Charles Herman,	Morgantown,	Special, M. E.
Sullivan, Annie Lee,	Jacox,	Summer School.
Suksdorf, Stella Bancroft,	San Diego, Cal.,	Summer School.
Sutherland, Margaret Root,	Morgantown,	Music.
Sutherland, Ida Katharine,	Morgantown,	Music.
Sutton, Charles Alexander,	Bridgeport,	Junior, Diploma Law.
Swan, Hazel,	Morgantown,	Music.
Swiger, Arlen Goff,	Clarksburg,	Sophomore, LL. B.
Tallman, Floyd Ellis,	Belington,	Junior, Diploma Law.
Tapp, Walton Ernest,	Morgantown,	Special, Vet. Science.
Taylor, Russie,	Elkins,	Music.
*Taylor, Shelby Ethbert,	Morgantown,	Freshman, B. S. C. E.
Taylor, Blake,	Elkins,	Special, C. E.
Tennant, Hattie Luella,	Morgantown,	Music.
Tennant, Odell Scott,	Morgantown,	Senior, Diploma Law.
Thaw, Robert Frederick,	Parkersburg,	Special, A. B.
Theakston, Pauline,	Morgantown,	Music.
Thomas, John David,	Red House Shoals,	Bar Law.
*Thomas, Edgar Austin,	Piedmont,	Freshman, C. E.

Thomas, Mary Anna,	St. Albans,	Summer School.
Thompson, Clara Dutton,	Morgantown,	Choral Society.
Thurmond, Walter Rippetoe,	Thurmond,	Senior, B. S.
Townshend, Earle Veitch,	Morgantown,	Special, A. B.
Toynbee, Anna,	Morgantown,	Special, Phys. Cul.
Tracy, Clarence Eustace,	Alderson,	Special, C. E.
Treat, Helen Loveland,	Morgantown,	Music.
Tresham, Jessie,	Harrisville,	Summer School.
Trippett, Adah Crane,	Kingwood,	Summer School.
Tuckwiller, Eugene Anthony,	Lewisburg,	Music.
Tuckwiller, Lucy Rachel,	Morgantown,	Choral Society.
Tuckwiller, Jesse Ray,	Lewisburg,	Senior, A. B.
Tuckwiller, Ross Homan,	Lewisburg,	Music.
Tuckwiller, Samuel Slater,	Morgantown,	Senior, B. S. M. E.
Tumlin, Margaret,	Ravensburg	Summer School.
Turner, Ella May,	Shepherdstown,	Senior, A. B.
Turner, Mary Rebecca,	Morgantown,	Music.
Vail, Barta Marie,	Ripley,	Summer School.
*Vance, Linnie,	Morgantown,	Freshman, A. B.
VanHorn, Moses Hoffman,	Salem,	Special, A. B.
Varner, Bessie Russell,	Sistersville,	Summer School.
Waggener, George Lewis,	Arbuckle,	Special, M. E.
Wagoner, Ada Louise,	Keyser,	Summer School.
Walton, Joseph Lee,	Market,	Bar Law.
Wamsley, Turner Ashby,	Parsons,	Summer School.
Ward, Nora Estelle,	Huttonsville,	Fine Arts.
Ward, Emma,	Huttonsville,	Music.
Warder, Ina May,	Webster,	Summer School.
Waring, James Cash,	Fayetteville, N. C.,	Special, A. B.
Warner, Flick,	Circlesville,	Special, A. B.
Warrick, Charles Fredericks,	Morgantown,	Fine Arts.
Waters, Ruby,	Morgantown,	Choral Society.
Watkins, Grace Minette,	Grafton,	Senior, A. B.
Watkins, Eva Maria,	Clarksburg,	Summer School.
Watkins, Mabelle Ray,	Grafton,	Freshman, A. B.
Watson, Bertha Sillimen,	Kingwood,	Choral Society.
Watson, Royer Earl,	Martinsburg,	Special, A. B.
Wayt, William Henry,	Morgantown,	Senior, A. B.
Wayman, Charles Encelle,	Fairmont,	Junior, B. S. M. E.
Weaver, Mabel Jane,	Morgantown,	Sophomore, A. B.
*Weaver, Archie Carlton,	Morgantown,	1st year, Medical.
Wellman, Inez,	Davis,	Summer School.
Wells, Walter Freeland,	Charleroi, Pa.,	Special, A. B.
Wells, Charles Evans, Jr.,	Wheeling,	Junior, B. C. S. E.
Wertz, Mayme Eleanor,	Huntington,	Sophomore, A. B.
West, John Thomas,	Cassville,	Junior, A. B.

Whaley, Baxter Monroe,	Finch,	Junior, LL. B.
White, Prescott Cushing,	Morgantown,	Senior, LL. B.
White, Mary Gertrude,	Morgantown,	Music.
White, Marguerite Minnie	Wadestown,	Music.
White, Stella Sexton,	Morgantown,	Special, A. B.
Whiting, George Wesley,	Martinsburg,	Freshman, A. B.
Wilcox, Howard Judson,	Honsdale, Pa.,	Senior, Diploma Law.
Wilkerson, Orla McCombs	Wolfrun,	Junior, A. B.
Williams, Fred E.,	Beckley,	Special, M. E.
Williams, Edward Levi,	Martinsburg,	Bar Law.
Williams, Edith Chenoweth,	Pittsburg, Pa.,	Summer School.
Willis, Dennis Martin,	Morgantown,	Graduate, LL. M.
Wilson, Andrew Clyde,	Sistersville,	Bar Law.
*Wilson, Lucy Chilton,	Morgantown,	Freshman, A. B.
Wilson, William Edwin,	Charleston,	Bar Law.
Wilson, Clara Rowand,	Fairmont,	Summer School.
Wilson, James Elmer,	Mannington,	Junior, B. S. C. E.
Wilson, Braden, Russell,	Hartstown, Pa.,	Special, Vet. Science.
Wilson, Otis Guy,	Harrisville,	Junior, A. B.
Winter, Hannah Margaret,	Trail Run,	Music.
Witherspoon, Clara,	Burgettstown, Pa.,	Music.
Witte, Homer,	Minnora,	Summer School.
Wolf, Lena,	Morgantown,	Music.
Wolf, Anna Marie,	West Brownsville, Pa.	Music.
Wolf, Viola Amanda,	Wheeling,	Sophomore, A. B.
Woodmency, Anna,	Ohio Pyle, Pa.,	Summer School.
Woofter, Herbert Addison,	Washington,	Sophomore, B. S. M. E.
Yanosky, Felix,	Longacre,	2nd year, Medical.
Yeardley, Lawrence Cook,	Parkersburg,	Freshman, B. S. M. E.
Yonker, Jacob Alfred,	Mason,	Sophomore, B. S.M. E.
Yost, Ellis Ashby,	Morgantown,	Choral Society.
Young, Houston Goff,	Craigmoor,	Senior, LL. B.
Zilliken, Bertha Katrine,	Wellsburg,	Summer School.

THE PREPARATORY SCHOOL AT MORGANTOWN.

Allen, Edward Alburtis,	Morgantown,	1st year.
Allender, Arthur Nelson,	Grafton,	Commercial.
Allender, James Guy,	Grafton,	3rd year.
Allender, Marie Pearl,	Morgantown,	Commercial.
Armstrong, Ralph Troxell,	Morgantown,	1st year.
Armstrong, Archie Philip,	Morgantown,	1st year.
Arn, George Albert,	Moundsville,	1st year.
Bailey, Edith,	Morgantown,	Commercial.
Bainbridge, Cecil Anderson,	Grafton,	2nd year.
Baker, Margaret,	Morgantown,	Physical Culture.
Baker, Charles George,	Morgantown,	Physical Culture.
Barr, Daniel Henry,	Irwin, Pa.,	1st year.
Barrett, Paul DeGolier,	Pt. Marion, Pa.,	Commercial.
Baumgartner, Hugh Homer,	Morgantown,	1st year.
Becker, Thomas Henry,	Bluefield,	2nd year.
Beckett, Artie May,	Morgantown,	Commercial.
Bell, Ernest,	Bula,	Commercial.
Bennett, John,	Middlebourne,	1st year.
Berry, Curtis Sterritt,	Wheeling,	4th year.
Best, Franck Phillips,	Morgantown,	2nd year.
Biddle, Milton Scott,	Morgantown,	1st year.
Bigler, George Washington,	Freed,	1st year.
Black, Minnie May,	Oxford,	Commercial.
Bonner, Harry Russell,	Shinnston,	1st year.
Boggess, Olney Earl,	Shiloh,	4th year.
Boughner, Jennie,	Morgantown,	2nd year.
Bower, Mary,	Morgantown,	Physical Culture.
Boydston, Fred Leonidas,	Fairmont,	4th year.
Brooke, Francis John Taliferro,	Morgantown,	1st year.
Brown, Nellie,	Morgantown,	Physical Culture.
Brown, Margaret Elinor,	Kingwood,	4th year.
Bufano, Garibaldi,	Connellsville, Pa.,	2nd year.
Burns, Corwin Sage,	Morgantown,	3rd year.
Burrows, Grace,	Morgantown,	Physical Culture.
Campbell, Sylvester,	Philippi,	1st year.
Carden, David Lamont,	Zela,	2nd year.
Carns, Alfred,	Poca,	1st year.
Casteel, William Wallace,	Morgantown,	1st year.
Casto, Grover Cleveland,	Peck's Run,	1st year.
Casto, Allen Thurman,	Peck's Run,	1st year.

Chadwick, George Sturgiss,	Morgantown,	3rd year.
Church, Clyde Porter,	Littleton,	Commercial.
Clarke, George Rodgers,	Burning Springs,	1st year.
Colbert, Josephine Tanquary,	Morgantown,	Commercial.
Colebank, Harry Blain,	Ira,	1st year.
Compton, Henry Tomlinson,	Morgantown,	3rd year.
Conaway, Felix Guy,	Alma,	1st year.
Coombs, James Lawrence,	Beechwood,	1st year.
Core, Ruth,	Cassville,	1st year.
Core, Guy Fleming,	Cassville,	Commercial.
Core, Rebecca,	Cassville,	2nd year.
Coulson, Percy R.,	Adamsburg, Pa.,	Commercial.
Courtney, Frances,	Morgantown,	Physical Culture.
Cox, Cresap Brent,	Moundsville,	1st year.
Cronin, David Arthur,	Portland, Conn.,	1st year.
Cummins, Ralph Neal,	Amos,	1st year.
Cummins, George Harold,	Wheeling,	4th year.
Dalinsky, Anna,	Morgantown,	Physical Culture.
Davies, David Evan,	Wellsburg,	3rd year.
Davis, Gail,	VanVoorhis,	2nd year.
DeBerry, Helen Margaret,	Terra Alta,	2nd year.
Debrocq, Dennise,	Morgantown,	Commercial.
Dent, Gaylord Hess,	Morgantown,	3rd year.
Devenny, Thomas Dondor,	McDowell,	1st year.
Devlin, Charles James,	Point Marion, Pa.,	1st year.
Douthat, Dana Glenn,	Morgantown,	Commercial.
Dunbar, David Berkley,	Morgantown,	Special.
Evans, John Christler,	New Cumberland,	3rd year.
Evans, Malchi,	Avondale,	1st year.
Evans, John Waldron,	Williamson,	1st year.
Frankenberry, Sturgis,	Audra,	1st year.
Gabbert, William Lloyd,	Gad,	2nd year.
Fallen, Patrick Henry,	Morgantown,	Physical Culture.
Fitzwater, John Roger,	Cassville,	2nd year.
Fleming, Pauline,	Morgantown,	Special.
Fleming, John Amos,	Morgantown,	4th year.
Fleming Frederick Malcolm,	Morgantown,	1st year.
Foreman, Lawrence,	Cheat Haven, Pa.,	1st year.
Foulk, Eric Anderson,	Hartford,	1st year.
Galvin, Amplius Memminger,	Wheeling,	1st year.
Garrison, Norman Morris,	Morgantown,	2nd year.
Harrison, Henry Otto,	Morgantown,	Commercial.
Goff, Shirley	Walker,	1st year.
Gracey, Robert Orr,	Charles Town,	Commercial.
Green, Sherwood Seeley,	Morgantown,	2nd year.
Gregory, David Tamblyn,	Webster Springs,	2nd year.

Griffin, Mayme Lucile,	Morgantown,	3rd year.
Griffin, Bertha Alice,	Morgantown,	1st year.
Grow, George Walter,	Williamstown,	2nd year.
Gunter, Charles F.,	Morgantown,	1st year.
Guseman, Gladys,	Morgantown,	3rd year.
Guseman, Sadie,	Morgantown,	3rd year.
Guthrie, James Ray,	Triune,	1st year.
Haddox, Grace,	Morgantown,	1st year.
Hall, Willie Glenn,	Morgantown,	3rd year.
Hall, Percy,	Tate,	1st year.
Hall, Stella Belle,	Morgantown,	1st year.
Hall, Monna Oella,	Morgantown,	1st year.
Hall, Viola Myrtle,	Morgantown,	1st year.
Hamilton, Walter J.,	Morgantown,	1st year.
Hanna, James Alexander,	Asbury,	2nd year.
Harlan, Monroe Elsworth,	Morgantown,	Commercial.
Harris, Thomas Lewis,	Hedgesville,	4th year.
Harris, Bessie Lee,	Morgantown,	2nd year.
Hartley, John Leslie,	Mt. Morris, Pa.,	Commercial.
Hawkins, Harry Jones,	Halleck,	Special.
Hayes, Francis Stewart,	Morgantown,	Physical Culture.
Heermans, Beatrice Gertrude,	Morgantown,	Commercial.
Heltzen, William Stanley,	Davis,	Commercial.
Henry, Walter Roscoe,	Morgantown,	Commercial.
Herd, Frank,	Morgantown,	2nd year.
Hess, James Emory,	Morgantown,	1st year.
Hoblitzell, Dempsey, Jr.,	Parkersburg,	Special.
Hodges, Mabel Clare,	Uffington,	4th year.
Holland, Clayton C.,	Morgantown,	3rd year.
Hood, Charles Guy,	Fairmont,	4th year.
Huey, James Golden,	Mannington,	2nd year.
Hunt, William French,	Dunkard, Pa.,	3rd year.
Jacobs, Virginia,	Morgantown,	Physical Culture.
Jamison, Jessie Lee,	Morgantown,	1st year.
Jenifer, Bessie,	Morgantown,	Physical Culture.
Jennings, Lettie Edwina,	Morgantown,	Physical Culture.
John, Matilda Elizabeth,	VanVoorhis,	Commercial.
John, Isaac Lafayette,	Mt. Morris, Pa.,	1st year.
Johnson, Ellsworth,	Freeport, Ohio,	Commercial.
Johnson, Henry Hamilton,	Morgantown,	Commercial.
Johnston, Mary Hayes,	Union,	1st year.
Jones, Leonard Henry,	Morgantown,	Commercial.
Joseph, Marie,	Morgantown,	1st year.
Kammerer, Elmer,	Morgantown,	1st year.
Keck, Mary Morrison,	Morgantown,	1st year.
Kinderman, Ralph Mason,	Morgantown,	1st year.

King, Anna Bessie,	Morgantown,	Commercial.
Knapp, Mary Gray,	Morgantown,	1st year.
Kooser, Ernest Rayburn,	Connellsville, Pa.,	3rd year.
Krebs, Leslie,	New Martinsville,	Special M. E.
Kremer, Harry James,	Morgantown,	1st year.
Lang, Edgar Reed,	Martinsburg,	4th year.
Lantz, Pierce Byron,	Blacksville,	2nd year.
Lantz, John Scott,	Aurora,	Commercial.
Lashley, Karl Spencer,	Davis,	4th year.
La Rue, Mary,	Morgantown,	Physical Culture.
Leavitt, Charles Ernest,	Belleville,	Special.
Lemaire, Eugenie,	Morgantown,	3rd year.
Lemley, Grover Cleveland,	Morgantown,	2nd year.
Linn, George,	Charleston,	1st year.
Lingamfelter, Charlie Brown,	Martinsburg,	Commercial.
Livengood, Karl Hayden,	Everson, Pa.,	2nd year.
Long, Clarence Ray,	New Martinsville,	2nd year.
Madera, David Guseman,	Morgantown,	Commercial.
Manear, Ruth,	Morgantown,	Physical Culture.
Marple, Festus,	Morgantown,	2nd year.
Martin, Virginia,	Morgantown,	Physical Culture.
Martin, Leona,	Morgantown,	Physical Culture.
Martin, Earl William,	Morgantown,	Commercial.
Mawhinney, Albert McPeak,	Cecil, Pa.,	1st year.
McCormick, Carlyle,	Morgantown,	1st year.
McDonald, Logan,	Sycamore,	1st year.
McGill, William Denny,	West Brownsville, Pa.,	1st year.
McGill, John Morrow,	Dawson, Pa.,	2nd year.
McKeel, Paul Leech,	Wingo, Ky.,	3rd year.
McMillen, Chester Edward,	Masontown,	1st year.
McNeill, Roland Karl,	Morgantown,	1st year.
Mealy, James Gordon,	Morgantown,	Commercial.
Mestrezat, Jean Paul,	Morgantown,	2nd year.
Metcalf, Albert Lancaster,	Williamstown,	1st year.
Miller, James Clifton,	Morgantown,	1st year.
Miller, Goldie,	Morgantown,	Physical Culture.
Miller, Estella May,	Morgantown,	1st year.
Minor, Helen,	Morgantown,	Physical Culture.
Moon, Elizabeth,	Morgantown,	Physical Culture.
Moon, Charles,	Morgantown,	3rd year.
Moore, Ira Murray,	Irwin, Pa.,	Special.
Morris, Montie,	Metz,	1st year.
Morris, Samuel John,	Morgantown,	2nd year.
Morris, James Thomas,	Cassville,	4th year.
Morris, William Robert,	Delta, Pa.,	Special.
Morris, Leroy Holmes,	Connellsville, Pa.,	4th year.

Naylor, Paul Barton,	Oakland, Md.,	3rd year.
Nestor, Clark Wallace,	Hooversville, Pa.,	Special M. E.
Nickell, Frank Farmer,	Sinks Grove,	3rd year.
Norman, Elsie Mae,	Spencer,	Commercial.
Ogden, Horace Ray,	Clarksburg,	1st year.
Oldham, Edward Curtis,	Moundsville,	3rd year.
Orr, William Otto,	Elm Grove,	4th year.
Osterberg, Axel Verner,	Eskilstuna, Sweden,	2nd year.
Patterson, Marjorie Bonner,	Morgantown,	3rd year.
Paul, William Emory,	Charleston,	3rd year.
Pearcy, Ethel Pauline,	New Milton,	Special.
Pearcy, Grace Henrietta,	Morgantown,	1st year.
Pixler, Goldie Maud,	Morgantown,	Commercial.
Pixler, Linn Roy,	Morgantown,	1st year.
Poling, Columbus Hall,	Philippi,	1st year.
Powell, Georgia,	Morgantown,	Commercial.
Price, Mildred,	Morgantown,	Physical Culture.
Price, Brown,	Morgantown,	Special M.E.
Prichard, Hugh Woodburn,	Mannington,	3rd year.
Prickett, Clarence James,	Fairmont,	Special.
Reed, Anna May,	Morgantown,	Physical Culture.
Reiner, Pearl Louise,	Morgantown,	3rd year.
Riddle, James Harrison,	Wheeling,	2nd year.
Richmond, Orrestus Albert,	Silver Hill,	2nd year.
Rigot, Victor,	Benwood,	1st year.
Riley, Joseph Edward,	Hoosick Falls, N. Y.,	1st year.
Roberts, Margaret,	Morgantown,	Physical Culture.
Roberts, Effie,	Morgantown,	Physical Culture.
Robinson, Orlie Wayne,	Clarksburg,	1st year.
Robinson, John Henry,	New Martinsville,	3rd year.
Rohr, Lonnie Bune,	Morgantown,	Commercial.
Romisch, Julia Anna,	Morgantown,	Physical Culture.
Rose, Robert Lee,	Hinton,	Commercial.
Ross , Flora Blanche,	Dunkard, Pa.,	Physical Culture.
Ross, Arthur Reed,	Hedgesville,	4th year.
Rupert, John Broadus,	Nuttallburg,	1st year.
Ryan, Lonnie Watterson,	Morgantown,	4th year.
Sapp, William Creed,	Gladesville,	Commercial.
Sanders, Ola,	Cassville,	Commercial.
Sammons, Willliam Phillips,	Calis,	3rd year.
Schmidt, Marie,	Morgantown,	Physical Culture
Scott, Clyde Hutchinson,	Morgantown,	1st year.
Scott, Clyde Waldo,	Beckley,	2nd year.
Selby, Clara May,	Morgantown,	Commercial.
Semans, Ruth,	Morgantown,	Physical Culture.
Semans, Georgia,	Morgantown,	Physical Culture.

Sennett, Olie Blanche,	Morgantown,	Commercial.
Shaffer, Ezra Herbert,	Carmel,	Commercial.
Shelby, Reece,	Morgantown,	Commercial.
Shelby, Sarah,	Morgantown,	2nd year.
Shelby, Minerva,	Morgantown,	Physical Culture.
Sigwart, Martha,	Morgantown,	Physical Culture.
Sisler, Franklin Herbert,	Morgantown,	3rd year.
Sloan, Charles Elonzo,	Meadville,	1st year.
Smith, Olive,	Meadville,	Commercial.
Smith, James Bruce,	Masontown, Pa.,	Special.
Smith, Margaret,	Morgantown,	Physical Culture.
Smith, Edith,	Morgantown,	Physical Culture.
Smith, Lucian Philip,	Morgantown,	2nd year.
Smith, James Garfield,	Morgantown,	Special.
Smith, Body Milford,	Elkins,	4th year.
Smith, Gordon Conrad,	Walkersville,	1st year.
Smith, Howard Haslett,	Butler, Pa.,	1st year.
Smith, Lester Meredith,	Walkersville,	1st year.
Spiker, Claud Carl,	Herring	Special.
Stanard, Urban Carden,	Webster Springs,	2nd year.
Stewart, James Vance,	Morgantown,	Special.
Stewart, Frank Marshall,	Amos,	1st year.
Stone, William Douglas,	Morgantown,	Commercial.
Sturgiss, Anna Gans,	Morgantown,	Commercial.
Sturgiss, David Carroll,	Morgantown,	1st year.
Sundmacher, Hans William,	Morgantown,	2nd year.
Sutherland, Margaret,	Morgantown,	Physical Culture.
Swearingen, Thomas Johnson,	Holliday's Cove,	4th year.
Tapp, Harry William,	Morgantown,	1st year.
Taylor, Edith Pugh,	Purgitsville,	2nd year.
Tennant, Sigel Lillian,	Pentress,	1st year.
Tennant, Ben Harrison,	Metz,	1st year.
Teter, Ray Cooper,	Belington,	1st year.
Tetrick, Claude Spray,	Enterprise,	2nd year.
Thacher, William Reynolds,	Williamsburg,	2nd year.
Thomas, Mary Eleanor,	Bula,	Special.
Thomas, Grace,	Auburn,	Commercial.
Thorn, William Benjamin,	Morgantown,	1st year.
Toon, Yee Quong,	Morgantown,	1st year.
Townshend, Margaret,	Morgantown,	Commercial.
Toynbee, Charles Edward Price,	Morgantown,	2nd year.
Tucker, Reitz Courtney,	Cassville,	2nd year.
Tuckwiller, Edward Hill,	Lewisburg	3rd year.
Turner, James Jackson,	Morgantown,	3rd year.
Turner, Phoebe,	Morgantown,	3rd year.
Vance, Joseph Cochran,	VanVoorhis,	4th year.

Vance, Myrtle Belle,	VanVoorhis.	1st year.
Vandale, Fred E.,	Schilling,	2nd year.
VanGilder, Esteelle,	Morgantown,	Physical Culture.
Wadsworth, Laura,	Morgantown,	Physical Culture.
Walker, George Elliott,	New Matamoras, O.,	1st year.
Walkup, Allen Homer,	Falling Springs,	1st year.
Waller, Samuel Aaron,	Webster,	Commercial.
Ward, Randal Cholmondeley,	Huttonsville,	1st year.
Watkins, Blanche Elizabeth,	Grafton,	4th year.
Weaver, George Fillmore,	Morgantown,	1st year.
Whitham, Rachel,	Morgantown,	Physical Culture.
Wildman, Arthur Meigs,	Morgantown,	Commercial.
Wilson, James Ray,	Mt. Zion,	1st year.
Winer, Aaron,	Pt. Marion, Pa.,	2nd year.
Wyatt, John Benjamin,	Shinnston,	3rd year.
Yeager, Paul Revere,	Marlinton,	1st year
Zellers, George,	Morgantown,	1st year

Absalon, Worthy Carver	Powellton.
Adams, William Smith,	Stum Branch.
Agner, Eva Irene,	Montgomery.
Allen, Beatrice,	Montgomery.
Beirne, Ida Theresa,	Cannelton.
Bird, John Walter,	Crosby.
Bostain, Della Bruce,	Carlisle, Ky.
Brannen, Kenna Patrick,	East Bank.
Breeden, Cora,	Cannelton.
Carson, Grace Augusta,	Montgomery.
Carver, Julia Lee,	Montgomery.
Champe, Louise Benson,	Montgomery.
Champe, Georgia Elizabeth,	Montgomery.
Clarke, Frank Rankin,	Miami.
Cole, George Washington,	Montgomery.
Cole, Eve Hune,	Montgomery.
Crabtree, John Dillon,	Handley.
Darnall, William,	Lansing.
Davin, Annie Montgomery,	Montgomery.
Davin, Thomas Laird,	Montgomery.
Davin, John Wysor,	Montgomery.
Dean, Stuart Benard,	Handley.
Dean, Sarah Elizabeth,	Handley.
Dent, William Thompson,	Montgomery.
Dent, Annie,	Montgomery.
Dent, David Willis,	Montgomery.
Dent, Morris Edward,	Montgomery.
Devaney, Daisy Alice,	Cannelton.
Dickinson, Annie Belle,	Gauley Bridge.
Dickinson, Jessie Elizabeth,	Gauley Bridge.
Dix, George Walter,	Victor.
Dwyer, Ellen Alice,	Handley.
Dwyer, Mary Catherine Monica,	Handley.
Dwyer, Thomas Patrick,	Handley.
DeQuasie, Jessie R.,	Deep Water.
Edwards, Charles Spurgeon,	Montgomery.
Edwards, Edward Owen,	Longacre.
Eppling, Nettie Leaverre,	Montgomery.
Farley, Seth Thomas,	Kanawha Falls.
Ferrell, Mona,	Montgomery.
Griffin, Mattie Evelyn,	Handley.
Grigg, Adrian Hansford,	Pratt.
Gulley, Florence Etta,	Montgomery.

Hackworth, Bessie Lee,	Montgomery.
Hemmings, Grace,	Longacre.
Hensley, Andrew Jackson,	Diamond.
Hickman, DeLora Ethel,	Montgomery.
Hickman, Virginia Elenor,	Montgomery.
Hopkins, Frederick,	Montgomery.
Horn, Jacob Morrison,	Baths, Va.
Hubbard, William Sillers,	Charleston.
Hurt, Wolsey Lloyd,	Montgomery.
Hurt, Lola Ella,	Montgomery.
Jenkins, Percy,	Montgomery.
Jones, Carrie Harrison,	Montgomery.
Johnson, Marinda Margaret,	Malden.
Keller, John Victor,	Longacre.
Kennedy, Marguerite	Carlisle, Ky.
Kinney, Florence Agatha,	Montgomery.
Klase, Frances,	Longacre
Knotts, Sarah,	Gauley Bridge.
Lane, William Lawrence,	Garnet.
Lawrence, Delbert Quince,	Handley.
McVey, Earl Yancy,	Victor.
McVey, Clarence Otho,	Victor.
Martin, Margaret Alice,	Montgomery.
Miller, Elizabeth Gertrude,	St. Albans.
Mille, Vernon Alfred,	Macdonald.
Mitchell, Tillie,	Holden.
Mitchell, Stuart, Floyd,	Holden.
Montgomery, Alma Livingston,	Montgomery.
Montgomery, Louise May,	Montgomery.
Montgomery, Henrie,	Montgomery.
Montgomery, Carl H.	Montgomery.
Morris, Alma Clifford,	Montgomery.
Morris, Gertrude Vaden,	Montgomery.
Morris, Carrie,	Montgomery.
Morris, Jessie,	Handley.
Morris, Nina Pearl,	Handley.
Morris, Lee,	Kanawha Falls.
Nihoof, Frank McCormick,	Boomer.
O'Brein, Margaret May,	Montgomery.
O'Brien, William,	Montgomery.
Ollom, Harlow G.,	Montgomery.
Patterson, Fred Alexander,	Montgomery.
Payne, Margaret Elizabeth,	Gauley Bridge.
Payne, Joseph William,	Montgomery.
Payne, John Linzy,	Montgomery.
Payne, Nelle Ethel,	Montgomery.

Phillips, Cora Maude,	Handley.
Pike, Frank Sibbald,	Handley.
Pike, Alice Martha,	Handley.
Pike, Gladys Lee,	East Bank.
Putney, Alethia Gertrude,	Malden.
Quesenberry, Frances,	Montgomery.
Quesenberry, Nelle,	Montgomery.
Quesenberry, Marshall Henry,	Montgomery.
Quinn, Georgia Alsace,	Montgomery.
Ramsey, Nicholas Hance,	Ramsey.
Ratliff, Amelia Coleman,	Mt. Carbon.
Reed, Joseph Edga,	Winifrede.
Ruffner, Ida May,	Montgomery.
Robson, Horace Greely,	Handley.
Schlaegel, Philip,	East Bank.
Scott, Margaret Collins,	Handley.
Settle, Frank Carr,	Deep Water.
Settle, Gertrude,	Robson.
Sevy, Ethel Kendall,	Handley.
Sevy, Clarke Russell,	Handley.
Simms, Ira Ranson,	Montgomery.
Simms, Laughridge,	Boomer.
Simms, Bulah Clyde,	Handley.
Shrewsbury, Jennie Lucile,	Montgomery.
Slack, George,	Mucklow.
Smith, Frank,	Montgomery.
Stafford, Garnet Lucy,	Eagle.
Stockton, Sallie E.,	Boomer.
Stone, Ethel Garnet,	East Bank.
Thayer, Mae,	Mucklow.
Stowers, Julia Grimes,	Montgomery.
Walker, Nelle E.,	Winona.
Waters, Blanche,	Carbondale.
White, Reynor Wilson,	Charleston.
Wiley, Harry Ruffner,	Malden.
Wilson, Lewis Leitch,	Winifrede.
Wilson, Charles Bruce,	Winifrede.
Wilson, Alma,	Cannelton.
Workman, Lottie,	Mucklow.

Abernathy, Otis Ervin,	McCoole, Md.
Armstrong, Nan,	Martinsburg.
Arnold, Charles,	Keyser.
Arnold, Howard Kimes.	Keyser.
Arnold, Lizzie,	Keyser.
Ashby, Daniel Boyd,	St. George.
Athey, John Thomas,	Keyser.
Atkins, Harry K.,	Keyser.
Babb, Roy C.,	Falls.
Babb, Helen Margaret,	Falls.
Barrickman, William Arthur,	Cassville.
Boyd, George,	Henry.
Blocher, John B.,	Bayard.
Brown, Vivian Iona,	Parsons.
Burk, Beulah Mary,	Keyser.
Burke, Bertha D.,	Keyser.
Burke, Mabel Curtis,	Keyser.
Burke, Viva,	Keyser.
Burnap, Bertie,	Keyser.
Bush, Ralph L.,	Alum Bridge.
Carskadon, Martha E.,	Headsville.
Carskadon, Miriam B.,	Headsville.
Carskadon, Ruth R.,	Headsville.
Clark, Chester D.,	Wallman, Md.
Clark, Flossie E.,	Wallman, Md.
Clem, Omer M.,	Keyser.
Coffroth, Emlie,	Keyser.
Coffroth, Harriet,	Keyser.
Combs, Stella May,	Parsons.
Combs, Earle L.,	Piedmont.
Compton, Ada B.,	Keyser.
Compton, Chester C.,	Keyser.
Corder, Odbert E.,	Bridgeport.
Cosner, Gilbert E.,	Buena.
Crabtree, Lena Lawrence,	Keyser.
Crooks, Laura,	Keyser.
Cruikshank, Dorothy V.,	Fishing Hawk.
Cunningham, Guy,	Job.
Cunningham, Warner,	Job.
Cunningham, Helen,	Burlington.
Dahmer, Adam Thomas,	Bank.
Davis, Edna Mae,	Keyser.
Davis , Richard Earle,	Elk Garden.

Dawson, Bessie E.,	Keyser.
Dayton, L. Bird,	Knobley.
Deakins, Forest M.,	Hardesty.
Deakins, Hugh F.,	Rowlesburg.
Deakins, Guy A.,	Rowlesburg.
Dickel, Frances,	Keyser.
Dixon, Howard G.,	McCoole, Md.
Dunham, Orland,	Friendsville, Md.
Edgell, Ethel G.,	Keyser.
England, Ethel Grace,	Keyser.
Epley, Joseph Clyde,	Terra Alta.
Estes, Lena,	Keyser.
Felton, John W.,	Whetsell.
Fertig, Claude W.,	Headsville.
Fisher, Bulah Edith,	Keyser.
Fisher, Mary,	Keyser.
Fisher, Burton B.,	Philippi.
Findley, Maud,	Monroe.
Fleming, Anna Cecilia,	Elk Garden.
Forman, Worley Klet,	Lenox.
Friend, Sadie Elizabeth,	Hoyes, Md.
Furbee, Fred,	Keyser.
Gerstell, Joseph E.,	Dawson, Md.
Gerstell, Louise,	Keyser.
Gladwell, Charles,	Keyser.
Godlove, Daisy,	Petersburg.
Gonder, Bernard I.,	Oakland, Md.
Goshorn, Lillian L.,	Piedmont.
Grayson, Fred. E.,	Antioch.
Greenwade, Marguerite,	Keyser.
Greenwade, Gay,	Keyser.
Grubb, Joseph K.,	Parsons.
Gurd, William H.,	Keyser.
Haines, Elmer L.,	Slanesville.
Hall, Bee Barto,	Keyser.
Hamstead, Arthur Pinkney,	Maysville.
Hamstead, Edna Mary,	Maysville.
Hanna, Warren,	Paw Paw.
Harman, S. B.,	Harman.
Harper, Delmar C.,	Harman.
Hass, Kathryn,	South Branch.
Heed, Carrie E.,	Elkins.
Hennen, Geo. W.,	Keyser.
High, Ethel Pauline,	Purgitsville.
Hill, Florence,	Charleston.
Hodges, Harry Curtis,	Keyser.

Hott, Clyde Burton,	Keyser.
Hott, Homer A.,	Keyser.
Huffman, Anna Mary,	Purgitsville.
Inskeep, Clyde Clayton,	McCoole, Md.
Jennings, Hicks,	Jenningston.
Jennings, Victoria,	Jenningston.
Johnson, Dora,	Keyser.
Johnson, Nellie,	Keyser.
Kaplon, Sarah R.,	Keyser.
Kephart, Luther A.,	Keyser.
Kephart, Raymond A.,	Keyser.
Kesner, Lee Olin,	Keyser.
Kidwell, Cora,	Keyser.
Kight, Grace Fern,	Keyser.
King, Robert Edgar,	St. George.
Knabenshue, Nina E.,	Headsville.
Koelz, Frederick R.,	Keyser.
Koontz, Van Lieu Louise,	Keyser.
Lambert, James Herman,	Redcreek.
Lauck, Laura S.,	Keyser.
Lauck, Lee G.,	Keyser.
Lauck, Irene H.,	Keyser.
Lauck, French F.,	Keyser.
Liller, Joretha A.,	Keyser.
Liller, Margaret A.,	Keyser.
Long, Carter Inskeep,	Keyser.
Long, Joseph Inskeep,	Springfield.
Lowry, Lawrence C.,	Keyser.
Lowry, Jennie,	Keyser.
Martin, Anna May,	Keyser.
Martin, Purley,	Swanton, Md.
Masteller, Erdene,	Keyser.
Mason, Carrie May,	Keyser.
McDowell, Clyde A.,	Thomas.
McNeill, Inez,	Old Fields.
Menefee, Horace F.,	Keyser.
Miller, Elizabeth,	Swanton, Md.
Mohler, May P.,	Keyser.
Neff, Irene,	Piedmont.
O'Brien, Mary Bertha,	Piedmont.
Paris, Sadie Esther,	Keyser.
Parsons, Mary Van Liew,	Piedmont.
Perry, Maurice M.,	Parsons.
Pifer, Earnest C.,	Parsons.
Pottoroff, John W.,	Keyser.
Pritt, Frank Wilson,	Parsons.

Purcell, Lenore,	Keyser.
Ravenscraft, Eddie H.,	Keyser.
Ravenscraft, Effie,	Keyser.
Ritchie, Charles,	Macksville.
Rogers, Albin Isaac,	Keyser.
Rogers, Etta McNeill,	Keyser.
Rogers, Edith Catherine,	Independence.
Russell, Kathryne,	Keyser.
Russell, John W.,	Keyser.
Sayre, Francis Batten,	Keyser.
Sharpless, Lola May,	Keyser.
Sharpless, Sarah Catherine,	Keyser.
Sharpless, Nettie,	Keyser.
Sheetz, Charles Harry,	Keyser.
Shelley, Georgia Anita,	Keyser.
Shobe, Charles Isaac,	Petersburg.
Shobe, Essye Carrie,	Petersburg.
Siever, Hughes Linwood,	Keyser.
Sirbaugh, John F.,	Capon Bridge.
Spangler, Lewis E.,	Auvil.
Spicer, Joseph H.,	Cumberland, Md.
Stehley, Lois,	Keyser.
Steiding, Grace M.,	McCoole, Md.
Stewart, Charles W.,	Keyser.
Taylor, Helen Kathrina,	Keyser.
Thompson, Lonnie Vandever,	Three Churches.
Thrush, Richard Wm.,	Headsville.
Trenton, Walter David,	Maysville.
Wagoner, Blanch Margaret,	Keyser.
Warner, Leola,	Keyser.
Whip, Mary Myrtle,	Keyser.
White, Herbert Harold,	Terra Alta.
White, Minnie May,	Elk Garden.
Wilson, Hattie Belle,	Burlington.
Wilson, Mertie E.,	Milam.
Winning, May,	Elk Garden.
Woolf, Andrew,	Keyser.
Workman, Marion,	Keyser.
Wright, Edna Beryl,	Keyser.
Wright, Marjorie,	Keyser.
Young, Lulu,	Corinth.

SUMMARY.

The College of Arts and Sciences	214
The College of Engineering and Mechanic Arts	110
The College of Agriculture (including the College of Veterinary Science)	14
The College of Medicine	27
The College of Law	107
The School of Music	167
The School of Fine Arts	19
The Summer School	122
The Commercial School	48
Additional enrollment: Choral Society only	42
Additional enrollment: Physical Training only	39
The Preparatory School at Morgantown	209
Total enrollment at Morgantown	1118
The Preparatory School at Montgomery	128
The Preparatory School at Keyser	176
Total enrollment	1422

ENROLLMENT BY STATES

West Virginia	1295
Pennsylvania	80
Maryland	17
Ohio	11
New York	3
Virginia	3
Kentucky	3
Massachusetts	2
Michigan	1
Illinois	1
Rhode Island	1
Alabama	1
Connecticut	1
Indiana	1
North Carolina	1
California	1
District of Columbia	1
Japan	1
Nova Scotia	1
Sweden	1

APPENDIX.

NUMBER IN FACULTY.

Professors	32
Associate Professors	5
Assistant Professors	4
Instructors	12
Assistants	12
Library Staff	5
Experiment Station Staff	12
Total	79

DEPARTMENTAL ENROLLMENT.

Note:—The following statistics were furnished by the heads of the various schools and departments and not by the registrar of the University.

The College of Arts and Sciences

Graduate Students	5
Seniors	22
Juniors	31
Sophomores	22
Freshmen	37
Special	97

The College of Engineering

Seniors	16
Juniors	19
Sophomores	15
Freshmen	35
Special students	25
Students from other departments	20
Preparatory students	26

The College of Agriculture

Graduate students	1
Seniors	1
Sophomores	1
Freshmen	2
Veterinary science	7
Certificate students	2
Special students	8
Students from other departments	20

The College of Law

Graduate students	1
LL. B. students	30
Diploma students	36
Bar students	40

The College of Medicine

First year students 12
Second year students 14
Special students 6
Students from other departments 15

The School of Music

Regular students.....204
Enrolled in Choral Society only 31
Total enrollment Choral Society 94

The School of Fine Arts

Regular students 19
Students from other depts. 149
Enrolled during Summer School 55

The School of Military Science

Total enrollment.....167

The Summer School

Total enrollment 260

The Commercial School

Regular students 48

The Preparatory School

Fourth year.....20
Third year 30
Second year 43
First year 94
Special students 16

The Department of Physical Training

Enrolled in this department ... 39
Students from other depts. 423

DEGREES CONFERRED JUNE 15, 1905.

Master of Arts

Charles Henry Ambler ...St. Marys
A. B., W. Va. University, 1904.
Arthur Lee Post .....Good Hope
A. B., W. Va. University, 1898.

Bachelor of Arts

Ervin Leech Anderson Morgantown
Walter Barnes .. ...Middlebourne
Alberta Caroline Baumgartner
Elk Lick, Pa.
Samuel Edgar Wade Burnside
Good Hope
Ethel Carle .....Eatons
James Davis Gibson ....Huntington
Daniel Myron Greene
East Greenwich, R. I.
John Stacy Keely .....Charleston
Elizabeth Valeria Llewellyn
California, Pa.
Joseph William Lyons ..Charleston
Leola Ethel Marrs .....Huntington
Dwight Eggleston McQuilkin
Shepherdstown
John Dement Muldoon
Shepherdstown
Dickson Ward Parsons Morgantown
Elizabeth Tapp Peck ..Morgantown
Edgar Ulysses Richards
New Cumberland
Jedediah Waldo Robinson .Grafton
Louis Clarke Snyder .Laurel Point
Orlin Hale Venner ..Corydon, Ind.
Ph. B., Berea College, 1902.
Dennis Martin Willis .Morgantown
LL. B., W. Va. University, 1899.

Bachelor of Science

Clyde Emil Watson .....Kingwood
Frederick Gordon Wood .....Pratt

Bachelor of Laws

Clyde Ferguson Amos ...Wheeling
A. B. Franklin College, 1902.
Samuel Clyde Carney ....Littleton
Edward Emerson Perry Carter
Middlebourne
Herbert Warder Dent.....Grafton
A. B., W. Va. University, 1904.
Jesse Tuckwiller Dunbar
Lewisburg
Charles Theodore Dyer ...Handley
Arthur Boyhan Fancher
Montrose, Pa.
Ph. B., Dickinson College, 1904.
Fred. Colborn Flenniken
Carmichaels, Pa.
Philip Freshwater New Cumberland
A. B., W. Va. University, 1902.
Charles Thomas Herd .Morgantown
Jacob Oswald Hertzler .Carlisle, Pa.
Ph. B., Dickinson College, 1903.
John Beswick Jones .....Dallison
A. B., Marietta College, 1902.
John Roy Marcum .....Huntington
David Leroy McGinnis ....Rocklick
Mont Earle Morgan .....Fairmont
A. B., W. Va. University, 1904.
Thomas Michael O'Hara Gladesville
John Alden Purinton .Morgantown
A. B., W. Va. University, 1903.
Roy Reger .....Rural Dale
A. B. W. Va. University, 1898.
Henry Simms .....Huntington
Frank Watts Tuckwiller Lewisburg
David Fleming Turner
Blennerhassett
Ph. B., Marietta College, 1901.
Roy Johnson Waychoff
Waynesburg, Pa

Bachelor of Science in Civil Engineering

James Clark McGrew Forquer
Ursina, Pa.
Gilbert Southy Lemley
Mt. Morris, Pa.
Earl Augustus Pabody .Huntington
Earl Bailie Snider .Uniontown, Pa.

Bachelor of Science in Mechanical Engineering

Charles Forrest Boyers Morgantown
James Scott Murphy ..Morgantown
Jones Abraham Stewart
New York City, N. Y.

Bachelor of Science in Agriculture

Addison Dunlap Ellison .Greenville
B. Agr., W. Va. University, 1903.

Bachelor of Agriculture

Hardin Duval Carroll .Morgantown

Diploma of Graduation in Law

William Watson Ingram ....Congo
Everett Franklin Moore Moundsville
Morgan Owen ....Summit Hill, Pa.
Harry Garfield Scherr ..Charleston
Cleveland McSherry Seibert
Martinsburg
Benjamin Franklin Stout
Parkersburg
Earl Veitch Townshend
Oakland, Md.

Diploma in Piano

Eleanor Blanche Barnes .Fairmont
Elizabeth Clayton .....Kingwood
Bertha Jane Smith ....Sistersville

Diploma in Voice

Bessie Julia Sadler Point Marion, Pa

Diploma in Violin

Frederick Schmidt ....Morgantown

Teacher's Certificate in Piano

Beulah Blanche Keener Morgantown

Diploma in Art

Neta Blanche Lazzelle, VanVoorhis,

COMMENCEMENT AND CONVOCATION SPEAKERS

Commencement, June, 1905, Hon. Wm. M. O. Dawson, Governor of West Virginia.

Summer School Convocation, Professor Nathaniel Butler of the University of Chicago.

Fall Quarter Convocation, President Chas. W. Thwing of Western Reserve University.

Winter Quarter Convocation, Wm. P. Hubbard, Esq., Wheeling, West Virginia.

Spring Quarter Convocation, Professor John J. Stevenson of New York University.

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